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BY JEFF HEMMEL

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Crownline

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The Scout 420 LXF is technologically advanced, fit to fish and more. Photo: Bill Doster





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Editori By Kevin Falvey



Going to a Boat Show

HAVE YOU EVER BEEN EXPERIENCED?

HEBOAT-SHOW METAMORPHOSIS began about 10 years ago. Once simple gatherings of boats where thousands of Top-Sider-shod men congregated while trying to look saltier than their fellow attendees, boat shows have slowly, but inexorably, become elaborate family-consumer events. Seminars that cater to novices and those with years of sea time alike, entertainment for children, interactive demonstrations, and a bill of fare that's as far a cry from cold hot dogs and flat beer as Iceland is from Miami represent the makings of a modern, top-tier boat show. In fact, the word "experience" can be used to describe boat shows with little risk of being charged with hyperbole.

One of the better examples of the boat-show experience occurs next month, opening on February 11. Of course, I am talking about the Miami International Boat Show (formally and officially known as the Progressive Miami International Boat Show and Strictly Sail). The Miami Show, as it is often referred to colloquially by boaters, includes all the attributes cited above, and intends to blow out the experience of the boat-show experience this year by incorporating even more boat sea trials and actual on-the-water use of marine accessories than ever before.

If you are a boating-industry follower, then you probably know that the Miami International Boat Show has a new location: the Miami Marine Stadium Park and Basin on Virginia Key, just south of downtown Miami. As opposed to its former location, the Miami Show is now sited on a subtropical island. Could there be a better location at which to ogle, admire, and consider the purchase of a new boat

or upgraded marine gear?

But if you know about the new location, you likely also know that there has been much controversy and local brouhaha revolving around this site's selection. Ahh, politics.

In fact, the word "experience" can be used to describe boat shows with little risk of being charged with hyperbole.

Let it alone. As boaters, we need to keep our eyes on the prize, the first of which is that a show, such as the one in Miami, provides an unparalleled opportunity at which to see, board and compare all the boats on our wish list. At a show, we can connect with the brokers needed to sell our existing boat, the money people needed to finance the new one, and the accessory and service suppliers to make either into the stuff of dreams.

Like the man said, the happiest days of a boater's life are the day the boat is bought and the day the boat is sold. In my experience, most boaters come out of that scenario still owning a boat. And that's a good thing.

Enjoy the issue.

Kevin Falvey, Editor-in-Chief editor@boatingmag.com

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Making Waves

ON BOARD WITH ..

Darcizzle Social-Media Fishing Star

For the generation brought up on social media, the fastest way to make a name for yourself is with a presence on Twitter, Facebook, YouTube or Instagram.
Case in point: Darcizzle (real name Darcie Arahill), who, as of press time, had over 60,000 followers on Instagram. We caught up with her between fishing trips. — Pete McDonald





So how did you get the nickname?

I was on the track team at Killian High School in the Miami/Kendall area growing up. Last time I checked, I still hold the female mile record (5:28)! So I was pretty fast and that is where the "sizzle" part comes in. Combined with Darcie, it became Darcizzle!

You started fishing at 3 years old. What are your earliest memories?

Snorkeling for lobster and fishing for snapper in Biscayne Bay. My dad started taking me out from the ramp in Homestead as early as I can remember. A

lot of the memories involve breaking down in our old Gheenoe and getting stuck in rain and thunderstorms.

How often do you get out?

Every possible chance every weekend, weather permitting. If I am not traveling around the state shooting my YouTube show with other great captains, we are fishing out of Boynton Beach Inlet. We often go before or after work. With the Gulf Stream so close to shore here in South Florida, you can catch wahoo, sailfish, mahi — almost anything — before or after a normal 9-to-5 work day.

What kind of boat do you normally fish from?

Our boat is the SeaDek Pro-Line. It's a 23 Pro-Line Super Sport all decked out by SeaDek. It's a great all-around boat.

Do you get recognized a lot?

All the time! It's really great. At events, like boat shows or ICAST, it can be a bit overwhelming. I'm just a girl that likes to fish. really.

What is the main message you try to send to your audience?

My main message is that kids in general,

and especially girls, really need to be out there fishing at an early age, as early as possible. I really believe that being outdoors, boating, fishing and doing stuff, builds self-esteem, confidence and maturity. This will make them into strong, independent women.

What is your ideal day?

Sleeping in and getting to the boat and the baitwell is already totally blacked out with live goggle-eyes and pilchards. We catch a wahoo, a sailfish and a mahi, and head in for some iced coffee, and someone else cleans the boat!









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→ FOR COMPARISON'S SAKE

Fuel Additives

Ethanol in fuel worries boaters even more now, with the introduction of gasoline with 15 percent ethanol, or E15. Some of the biggest names in fuel-system additives have come out with their own products to combat the effects of ethanol.

Here are three of the most popular. — Eric Colby



Star brite Star Tron

THE PUMP: Star Tron. from the Star brite company. uses enzyme technology to break down excess water and sludge in fuel, reducing them to submicro sizes so they can be safely burned off during engine operation. It prevents the formation of gums and other solids that clog carburetors and fuel injectors. One ounce treats up to 16 gallons of gasoline. It not only works for ethanol issues, but it can also increase power and improve efficiency.

THE GAS: The company claims it will stabilize stored fuel for up to two years.



360 Marine Ethanol Fuel Treatment and Stabilizer

THE PUMP: The only additive claiming to have the ability to prevent corrosion both above and below the fuel line. It helps remove water from the fuel, treats and protects against ethanol, and stabilizes gasoline for up to 12 months. For inseason use, I ounce treats up to 10 gallons, and to store, use 1 ounce for 5 gallons of fuel held in the tank.

THE GAS: Sta-Bil claims to emit a vapor that protects fuel-system components from problems, like corrosion, that others don't.



ValvTect Ethanol Gasoline Treatment

THE PUMP: Formulated and developed with the cooperation of petroleum refiners, it has been tested to prevent ethanol and entrained moisture in the gasoline from dropping to the bottom of the fuel tank. The ValvTect product contains a corrosion inhibitor and a detergent to prevent intake-valve deposits and to clean fuel injectors. It stabilizes fuel for up to a year, and I ounce treats 10 gallons of gas.

THE GAS: Claims to be manufacturer and ASTM verified as effective.

PRICE: \$15.49 for 12 ounces: valvtect.com





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In Our Wake: Two-For-One Special

In our January 1977 issue, Glastron proudly displayed its new SSV model, billing it as two boats in one. As the ad reads, "Never before has any boat matched the handling of a deep vee with the stability of a tri-vee. Until now." The Glastron SSV could hold a crew of eight, with your choices of a 17- or 18-footer and sterndrive or outboard power. In today's world of crossover boats, maybe the SSV was ahead of its time. - Pete McDonald



Captain's Test

Boat-Show Season

For many of us, this time of year means cold temperatures and boat-show season. If you're thinking about taking the plunge and buying your dream boat at a boat show, here are some pointers to help you make the right decision. - Eric Colby

- You're considering an 18-foot bowrider powered by the "base" four-cylinder sterndrive. You doubt its ability to tow your kids on skis and boards. What is the other concern when going with the base motor?
- A. Fuel consumption
- B. Boat ride
- C. Resale value D. All of the above
- You notice there are two- and four-stroke outboards available on some boats. What are the differences

between the motors?

as a two-stroke.

- A. Two-stroke motors run on a mix of oil and gas.
- B. Four-stroke motors run on a mix of oil and gas.
- C. The propeller on a four-stroke spins twice as fast as on a two-stroke. D. A four-stroke is twice as powerful
- One boat has a special show price that includes a stainless-steel propeller. What is the benefit of this propeller over an aluminum prop? D. The window sticker

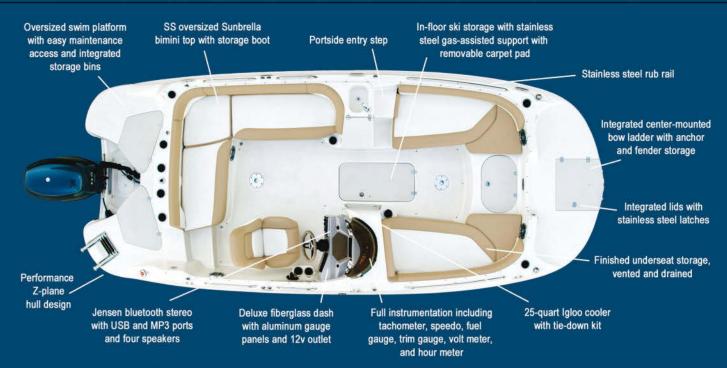
- A. It's lighter.
- B. It resists corrosion better.
- C. It's sharper.
- D. It flexes less, resulting in a faster speed for a given rpm.
- When you want to know how many people a boat can carry, where do vou look?
- A. The brochure
- B. The specifications on the manufacturer's website
- C. The boat's capacity plate

- Boat, motor and trailer packages look like a turnkey deal. How can you determine if your SUV can tow the boat you're considering? A. Compare the combined package
- weight against the vehicle's gross vehicle weight rating (GVWR). B. Check the vehicle's weight
- rating. For example, is it half a ton or 1 ton?
- C. Check the weight of the boat and the motor.
- D. Ask the trailer manufacturer.



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App of the Month

U.S. Coast Guard Mobile App

After inputting your profile data in the U.S. Coast Guard mobile app — that is, entering things such as the specifics of your boat, including size, type, home port and registration — you have access to a range of data and services that will make you a safer boater. Here are some thoughts based upon using iOS version 1.01 for several months.

The app's intent is to provide a single source of boating safety information, and it does that well. There are icons providing access to menus for state boating regulations, rules of the road, reporting a hazard, requesting a vessel safety check and more. Perhaps its most important features are its ability to help you request

emergency assistance and the ability to file a float plan.

The app is highly personal, using your profile data and your device's GPS to provide you with information specific to your boat and your location. For instance, rather than simply displaying generic required equipment, the app will display equipment required for my boat type. If I want to make an emergency call, one tap displays instruc-

tions on how to use VHF to hail for help, as well

as a button to call the Coast Guard and another button to dial 911. The latitude and longitude are also displayed, the key pieces of info in any Mayday or emergency call.

For a fishing trip offshore. I was able to file a



float plan with just a few taps my personal data and my boat information were preloaded. In fact, like most boaters, I cruise to many of the same places over and over. The app's developers recognized this and incorporated functionality for inputting and saving multiple float plans. So, at a touch, I can easily file a float plan for every trip. - Kevin Falvey



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Making Waves

Online This Month

Before you go to the nearest boat show, do your homework so that you're prepared for more than just expensive hot dogs. Want to hit a guaranteed home run at the show? 1 Check out our archive of prestigious Boat of the Year winners at boatingmag.com/tags/boat-year. One of them could be the right boat for you. 2 Looking for something different? Check out the reviews and videos from our *Boat Buyer's Guide* at boatingmag.com/bbg2016. 3 If you do buy a boat, visit our Coast Guard-sponsored boating-safety page to learn how to be a responsible boater at boatingmag.com/boatingsafety.









Bells and Whistles
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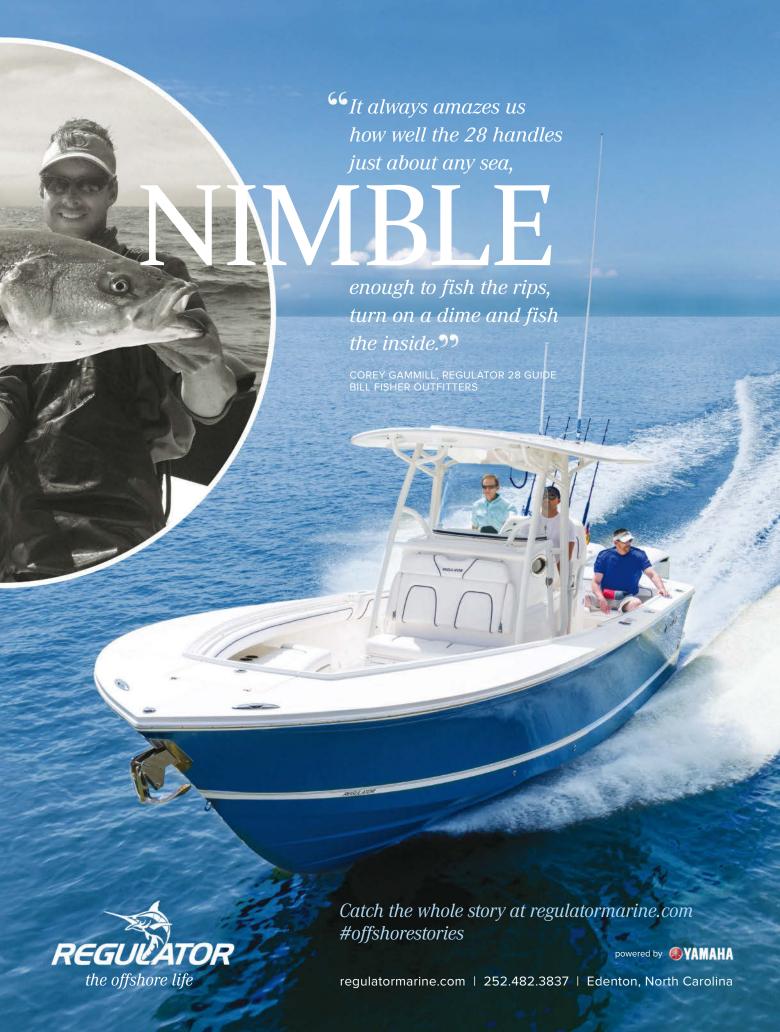
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Windshield

"Uttra Leaning Post w/
Field Down Back Rest

18-Gallon
Live Well
Live Well

Stainless Street
Strengt Windshield

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I Learned About Boating From This ...

By Randy Vance



Diver Down

A CLOSE CALL TEACHES VALUABLE LESSONS

E DECIDED TO MEET FRIENDS IN THE FLORIDA KEYS with our 25-foot center-console to hunt for lobster. While our life jackets were stowed over the helm in an easily accessible, zippered compartment, our throwable cushion was normally stashed in the console below so that it wouldn't blow off.

On this day, we quickly buried it under our dive gear, which we didn't normally carry on board.

We launched the boat at Bahia Honda Key near Marathon and began to lobster in the pass under the Overseas Highway. Our wives manned the boat while we began to drift-dive in a pass under an Overseas Highway bridge, drifting with the tide toward the Atlantic.

My buddy and I quickly learned that our dive buoys had been pulled underwater when we stopped to investigate a spot, making it hard for our wives to pace us. To make matters worse, visibility was low and we were quickly separated from each other.

As a less experienced diver, my tank emptied quickly, and I surfaced about 30 minutes into the dive. At least 15 minutes passed after I'd reboarded and we hadn't yet spotted my dive buddy. We still weren't too worried. He was a better diver, and in only 25 feet of water, he would have enough air for an hour or more.

Finally, a diver surfaced alone, but far off at the edge of the Atlantic. Nearly a speck, he raised his arm, waved and waited. Our diver, so we thought.

I eased the throttle up and advanced at a fast idle, using the current to enhance speed and avoid waking other boats in the pass.

Then the diver began to wave frantically.

"Wow, he looks a little panicky now. I wonder what's wrong," somebody said. "Hang on, we'd better rush on over."

As we got near the diver, I dropped the throttle back and realized that he wasn't our diver. But he was panicking, his maskless face bobbing above and below the surface. I shut the motors off and tossed him the stern line. I hit the target, luckily, as I didn't have a backup plan, and he didn't have time left for another pass.

"You OK?" I asked.

"No." He grabbed the rope, his face grim.

"You want in?"

"Yes."

On board, he took a minute to compose himself, and I explained that I needed to start the motors to regain control of the vessel. He steadied himself against the transom, and I noticed his completely deflated BC.

"I lost my boat and my BC ruptured. I was cramping up."

In a moment, the crew on his boat spotted us and wanted to transfer him back to the vessel.

"Before we take the time to transfer, I need to get my diver back aboard," I hailed back.

Another 100 yards or so upstream our diver surfaced, and we reclaimed him too.

In some ways, it was fortunate for the distressed diver that we were hunting so hard for our own diver. He was nearly lost in the Atlantic, still traveling fast with the tide.

In reality, we could've lost two divers. We had made several mistakes.

First, we buried our throwable cushion. Now it hangs on the rod holders behind the helm station.

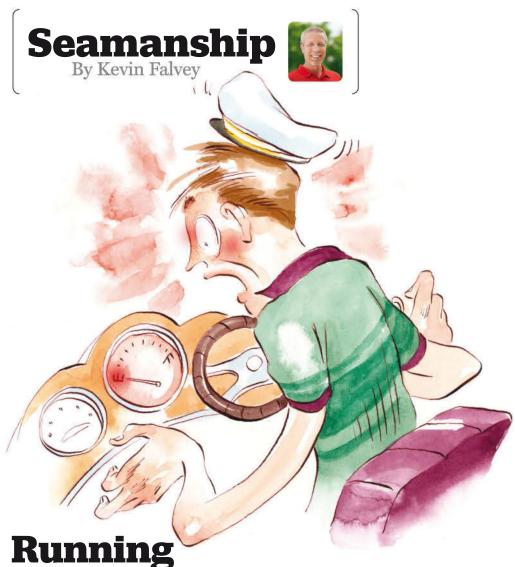
Second, our chase crew wasn't wearing life jackets. Had they been, one of them could have safely jumped overboard to assist the diver. Now our chase crew wears inflatable belt packs. They don't interfere when you're wrestling with heavy gear, and, less important but noteworthy, they don't interfere with enjoying the sun and sea air.

Finally, we have now moved to a dive area that is less demanding for two untried dive buddies. We have also set a bottom time limit of 20 minutes, after which we resurface, check our position with the boat and buddies, and make sure we are all in sync.

Do you have a lesson to share with your fellow boaters? Send your first-person accounts, including what went wrong, what you'd do differently, any supporting photos or sketches, your name and your city to editor@boatingmag.com.

l've never needed it before.





FUEL IS A LIFELINE

On Empty

S I AM WRITING THIS. THERE IS A YOUTUBE VIDEO THAT'S gone viral depicting a small boat that almost gets run down by a tanker as a result of running out of fuel. There is just no excuse for running out of fuel. At the same time, even the best captains are human and stuff happens. With that in mind, let's take a look at four techniques you can employ to combat running out of fuel.

RULE OF THIRDS Older than a pebble on the bottom of the sea, adherence to this rule begins by calculating the amount of fuel needed to get to a destination and making sure that amount equals no more than one-third of your tank's capacity. Reserve another third to get home from your destination. The final third is your reserve capacity to be used for unforeseen circumstances.

ROUGH WATER If the wind comes up and waves build, you will need more fuel to return home than

you would if the seas remain calm, so keep abreast of the weather. I can personally attest that it's less stressful to wait for weather

than it is to get out "in the middle" somewhere and hope you can make it back.

TRIM UP Boat fuel tanks are properly installed when the fuel pickups are on the aft end of the tank. Since boats normally run with some inclination (bow rise), that proviso allows your engine to keep sucking fuel longer than it could if the tanks were fitted with forward-mounted pickups because the contents of the tank will pool higher in the aft end aboard a boat that's underway. Knowing this,

you might want to keep the boat on plane and keep the bow up if you suddenly notice that the fuelgauge reads empty. A common temptation is to slow down to idle the intuitive choice. There are no guarantees; just keep this in mind.

PLAN B If, while out on the water, you suddenly remember that you forgot to fuel up, beat yourself up about the mistake later. The first course of action to take is to check and see if there is a closer, alternative port or landing that you can return to. In fact, it's always prudent to have a Plan B in mind because, even with enough fuel, sometimes weather can prevent you from (safely) returning to your point of departure. Prudent skippers always give themselves options.

LOG IT Historically, boat fuel gauges are about as reliable as a free pen from the bank. Aboard big boats and yachts owned by those with unlimited budgets, the tanks are fitted with sight gauges, which are glass tubes installed on the side of the tank that allow you to eyeball the actual fuel level in the tank. Sight gauges are only allowed for diesel, but I know that these big-boat skippers also keep a fuel log, noting the date, engine hours, and amount of fuel purchased. There is no reason to trust a gauge, your memory or any one thing.

At best, running out of fuel is an inconvenience. At worst, it can take the lives of you and your crew. Take the steps required to reduce the chances of it happening.



Looking Astern

STEERING A STRAIGHT COURSE REDUCES FUEL BURN. In our February 1964 issue, Teleflex (now SeaStar Solutions) advertised this wheel with a rudder-angle indicator in the hub to help boaters do just that. — K.F.



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The Boat Doctor





ASK THE MASSES Go to boatingmag.com/forums to ask fellow boaters your questions, or to answer theirs.

Charged

[**Q**] I installed a dual-battery system in my boat. I'm not sure the second battery gets fully charged. It is a 2003 115 hp Mercury two-stroke fitted with the standard alternator. Does such an engine generate enough juice to charge both batteries? If memory serves me correctly, it charges battery No. 1 before battery No. 2?

BOB BLOCHLINGER

Forked River, New Jersey

- [A] Hi, Bob. Whether the charge output is 10 amps or 50 amps, it's enough to charge your batteries. But how long that takes is the real question.
 - A. The engine puts out more charge at higher rpm. Usually half to two-thirds throttle is required to get the max charge output for any given engine. Let's say you have a 50-amp max output. At trolling speed, you might only be putting out 10 amps. At 4,000 rpm, you are putting out 50 amps.
 - B. How long you run at a given speed determines the charge you get. So if you troll for four hours based on the example (A) above, you would put out 40 amps to the batteries. If you cruised for four hours, you would put out 200 amps.
 - C. How big are your batteries with regard to amperage what is their capacity? (Ask the manufacturer.) This needs to be known to estimate how much time and what rpm will deliver "X" percentage of charge for your batteries.

A 100-amp battery is typical. Let's say you have two of those. Using the examples above, you would have to run four hours at 4,000 rpm to fully charge your batteries (4 multiplied by 50 amps equals 200 amps). You'd have to troll for 20 hours to achieve the same thing.

But — and a big but — while you are running some things you are also working against your charging capacity. For example, you are



Does glare impair the visibility through your boat's windshield? Often, if the helm is white, or light-colored, its reflection can be seen in the windshield. This is often more than just bothersome, as impeded visibility hinders your ability to see other boats, navigation aids and to read the water. A quick fix is to place a dark-colored towel or T-shirt atop the helm. The reflection created by dark colors is easier to see through and, therefore, safer. — Kevin Falvey

probably running a fish finder, lights or other accessories that are using some of the available amperage. Let's say your accessories require 8 amps to run, and the engine is putting out 15 amps of charge. That means that you net just a mere 7 amps for the batteries.

Also, resistance in the wires makes charging less than 100-percent efficient; typically, there might be a 3 to 5 percent loss of charging ability, even with new wiring.

Finally, a battery that's drawn down accepts a charge more readily than one that's nearly fully charged. So as the battery gets charged, it takes more and more amps to achieve the same results.

So the answer is: Yes, it can charge your batteries. But how long depends on how you use the boat, how it's wired and what accessories you run.

As to your question regarding whether the ACR charges battery No. 1 before battery No. 2: yes. Charging current flows through one battery before getting to the other. So there is some loss due to resistance (the current must flow through a battery and through the cable connecting the other battery). How much resistance depends upon the length of cable, its diameter, and the condition of the connections. Also, if the first battery is perpetually dead, or worn out or old, you'll have even more loss.

Lube Tube

Q A general question: Will the new outboards benefit from synthetic oil? **JOSH MCKILLOP**

Oklahoma City, Oklahoma

[A] Josh, the short answer is probably. Many of the OEM lubricants are synthetic and are recommended. But a blanket statement is not fair to make, nor do I have space here to cover the topic with sufficient detail. Check out this article for a complete answer: boatingmag.com/engines/do-youneed-synthetic-oil.



IT'S ABOUT TIME LUXURY KICKED SOME BUTT.



Extravagance is usually content to make its own bold statement. Yet, the impressive Cruisers Sport Series 338 Bow Rider is definitely the exception. Replete with luxurious features and amenities, its advanced styling and thrilling performance bring plenty of attitude to command any water. With the largest cockpit entertaining area in its class, and spacious, air conditioned cabin and private head below for all-day exhilaration.

Experience the Cruisers Sport Series difference. Visit www.cruisersyachts.com for show information.



Repair or Replace

Q Boat Doctor, this is a question regarding "preventative maintenance." I have owned a 1986, 27-foot Trojan cruiser powered by a single inboard for the last four years. The previous owner rebuilt the engine about 10 years ago, and I am assuming he replaced the engine-cooling water pump at that time. While the impellers have been changed every two years, is it time to change out the water pump even

service instructions for a random Jabsco pump: xylemflowcontrol.com/files/42730_43000-0544.pdf. You can source parts and information about your specific pump from the same folks at Xylem.

Leaking

[Q] My boat is powered by a 1989 MerCruiser sterndrive. Water comes into the bilge when the drive is trimmed all the way up. My dealer's service manager maintains that the boots are good, but I can see water streaming in through the transom

cutout.

JOE HARTOS

Via boatingmag
.com

[A] Chances are good your

transom seal is gone or the upper swivel-shaft seal is gone. These are basically big O-rings. You can buy replacements through your dealer. You can try socking down the mounting bolts more tightly to compress the seals, but, given that the boat is a 1989, you might have a soft transom. The transom is cored with plywood and after 20-something years, water can start to rot it. If it gets soft, no seal is going to work.

So first pull the mounting bolts and examine the core of the transom. Is it dark and mushy or clean and firm? If it's the latter, replace the seals. If the former, you need to get the transom redone (this can be a DIY affair, provided you are handy with a grinder and fiberglass).

Listing

[**Q**] I own a 1992 Silverton, and it has been leaning more and more for the

past few years. It appears as though water is seeping into the fiberglass through the hull. The engine is in good shape, having been repowered recently, but, as in many older boats, small fixes are starting to add up. Is there an affordable process to fix the listing problem?

ROBERT YOUNG

Washington, D.C.

[A] If you have a leak, you just have to find it. The most likely spots are the transom around the drive, or any transducers and through-hull fittings. Also check the hull-deck joint (under the rub rail) at the transom where it is low to the water. It is not unusual to have to remove these areas and rebed them with sealant after 20-plus years.

The water may be accumulating from the natural condensation that occurs inside a hull. The deck is in sunlight and the bottom is in the water, and the difference in temp creates condensation, just like a glass of lemonade on a hot day. Water can be getting in from fittings on the deck, like cleats, rails and deck plates, which need to be removed and resealed. Caulk does not last forever.

In any case, your bilge pump should be running all the time, or a lot of the time, as water should make its way to the bilge and be pumped out. You can buy a simple counter that can be wired in line with the pump to track how often it goes off. As you address each of the areas mentioned above, it will allow you to see if you are making any progress there.

If the boat is listing, that means water is accumulating on one side, probably between the stringer and the hull side. These stringers should have

limber holes — drains — in them that allow water to run to the lowest part of the bilge and be pumped out. Over time, they can become clogged with debris, algae, etc. Find and clear your limbers to see if the water will drain to where your pump can get it.

Fiberglass laminates do become porous, or can become so. But usually the porosity is



though it has been running without a problem? The pump is a Jabsco and is priced between \$550 and \$630. (Note: The boat has always been used in salt water.) Thanks.

RON CHARRON

Seekonk, Massachusetts

[A] Those pumps are completely rebuildable. Unless the housing is cracked, there is no need to replace it. The pump should be demounted and disassembled at least every two years. At that time, the wear plate, shaft, seals and bearings should be inspected and replaced.

There are complete rebuild kits for these Jabsco pumps. (Well, some may be discontinued, but parts are available for most of them.) Here are

WE TEST STUFF

SeaDek Coaming Bolsters

I recently installed SeaDek coaming bolsters aboard my boat. These are self-adhesive pads made from SeaDek's tough composite material. They can be ordered in custom sizes and come in a range of colors. After a season of sun, salt, fish blood, spilled drinks and more, they still look great. For a step-by-step photo gallery that details the installation, visit boatingmag.com/seadek-coaming-bolster-padsinstallation. Starting at \$105; seadek.com — K.F.



МАКЕ

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M SERIES

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restricted to the skin of the boat. That is, it doesn't permeate through to the inside of the boat. Rather, the water wicks and saturates the fibers under the gelcoat, often manifesting itself as blisters.

Block and Tackle

Q I am storing my boat on my own property for the first time. (I just bought my first home.) In addition to boat stands or blocks at the transom corners and bow, should I add support under the keel?

TOM SHEEHAN

Atlanta, Georgia

[A] I see too many boats stored on simple "three-point" blocking. Even the sturdiest, best-built boats can sag or otherwise suffer from such meager support. In addition to blocks, stands or cribbing at the corners and bow, you should support the keel with blocks or cribbing every 10 feet.

Go, Man

[**Q**] Boat Doc, the engine in my 1991 Maxum SR 21, a 4.3 V-6, sounds like it has spun the rod bearings and probably damaged the crankshaft. It knocks a little at idle and sounds really bad above 800 to 900 rpm. I have an opportunity to get a new 4.3 automotive short block at a very reasonable price and want to know if I can use it in my boat. I've asked this at a few marine dealers and have been told both yes and no. Any thoughts?

STEVE SMITH

Chicago, Illinois

[A] Steve, it will turn the drive shaft and make the boat go. The cams are probably set up for a different torque profile, so you may have a different experience running the boat, and may need to play with props and gear ratios. Also, a marine short block would be warranted for marine service. I don't think an engine block sold for automotive use would be covered by a warranty if used in a boat.

Since you used the term "short block," I'll emphasize that all your bolt-on equipment — starter, alternator, oil pan, etc. — should be "marine-grade" material for both safety and durability.



Stabilized

[**Q**] I have historically added Star brite Star Tron fuel stabilizer to my boat's gas tank for a couple of years and recently acquired several bottles of Sta-Bil. Can I use these interchangeably?

BOBBY BEHAN

Virginia Beach, Virginia

[A] Yes, Bobby, you can.

This Blows

with a MerCruiser 496 MAG and Bravo Three drive. My speedometer is broken. I borrowed one that works and hooked it up to the tube at the dash. It didn't work either. Thinking the tube may be blocked, I disconnected it at the speedo and at the transom, and blew air through it. It was clear. I then disconnected it at the drive where it goes into the lower unit, and it blew clear too. I cleaned out the hole in the front edge of the gear case with

a piece of stiff wire. But when I blow air through the hole in the skeg, no air (or just a little) comes out the air line where it is connected at the lower unit. I just don't know how these things work to figure out what my problem is. **TOM GILL**

Mechanicsburg, Pennsylvania

[A] It's common for the inlet in the lower unit to get clogged. You can chuck a stiff piece of single-strand household wire (14 gauge, stripped) into a drill and operate it on slow speed to try and ream it out. Your best bet might be connecting your existing tube to a transom-mounted pitot tube, like those made by Teleflex. They're about \$20 at any marine supply store.

Heating Up

Readers, I received many great alternative solutions to a question posed by Eric Hanson ("Not Again," February 2015) about his engines failing to restart after running for a while. The next letter is another one. — *Mick Hannock*

Doc

One other answer I found in this situation is the engine may have heat seizures. The engine will get hotter for a short time after turning it off and may expand. My solution in this situation was a high-torque starter.

BERNIE

Davis Park, New York



NAUTICAL NO-NO

Replace the Plastic

What's wrong with plastic through-hull fittings in the splashwell, as pictured here? Our feeling is that plastic fittings are OK above deck, but their relatively fragile nature makes them inappropriate for use below the waterline. Also, age and ultraviolet exposure render plastic through-hulls brittle and more likely to crack or shatter over time.

In this case, the deeper portion of this splashwell sits below the waterline and is almost always full of water (except when underway). Should one of these ½-inch O.D. plastic through-hulls (one for the livewell discharge and the other for a deck scupper) break, water can pour into the bilge.

The solution in this case consists of replacing the plastic fittings with throughhulls constructed from bronze or stainless steel. It's cheap insurance; a bronze replacement $\frac{1}{2}$ -inch through-hull costs \$48.47 at jet.com. – $Jim\ Hendricks$



PHOTOS: (FROM TOP) COURTESY GOLD EAGLE COMPANY, JIM HENDRICKS

[**Q**] I'm looking at a 2002 Seaswirl Striper 1851 powered by a 2002 Yamaha 150 hp outboard with 99 hours on the clock. Is this a good deal?

TONY STEELSMAN

Via boatingmag.com

[A] Every used boat is unique, Tony. I recommend contacting a licensed marine surveyor from either NAMS (namsglobal.org) or SAMS (marinesurvey.org). At the very least, find a knowledgeable friend.



A-Tach!

[**Q**] I own a Cruisers 4270 with Faria tachometers. One of the tachs is erratic. It displays either maximum rpm or somewhere in between even when the engines are idling. I have asked my service technician about this and he indicates that tachometers frequently go bad, and the only thing to do is replace them. Is that correct? Is there a sending mechanism that is bad or do I replace the entire tach?

Also, the hour meters in the tachs no longer show up. They started fading and now cannot be read at all. What causes this?

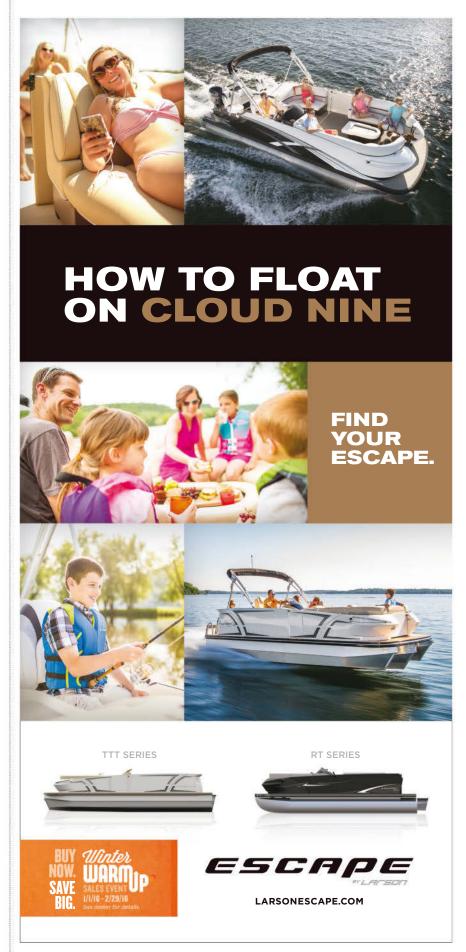
Thank you for your help.

MARK RAPIER

Springboro, Ohio

[**A**] Mark, if you want to double-check your mechanic, try these steps:

1. Find the ground wire for the tach behind the helm and make sure it is connected to both the tach and a good ground. Check its connectors and the length of wire. Often, a bad ground is the problem. Of course, if you have access to another tach, you could wire it with alligator clips to the existing tach wiring. If the new



charging problems, this probably

The Boat Doctor

- tach works, you know yours is bad (they do go bad).
- 2. There is no tach sender. A tach gets its reading from the alternator or rectifier. With all

due respect, if you are asking this question, then troubleshooting those items may be beyond what you are able to do yourself. That said, if you aren't having any

WE TEST STUFF

Icom IC-M324G

I installed an Icom IC-M324G aboard my center-console boat in spring 2015, and it has delivered reliable service since, despite its location on the exposed helm of a boat kept in salt water ... not to mention the occasional careless dousing of the washdown hose.

> Fortunately, this radio is waterproof and offers a feature called AquaQuake that causes the speaker to vibrate and shake off moisture like a Lab after a swim.

> > But there are more reasons to like the IC-M324G than just the great display visibility and its IPX7 submersing ability. For instance, the built-in GPS made installation easier, affording me the safety of DSC without having to fiddle with finicky interface wiring. That same integral GPS can also power AIS. Choose from black or white. \$259.99, icomamerica.com — K.F.

- 3. Hour meter: Integral to your tach, it's wired just as though it was a separate gauge. It's one purple (positive) and one black (negative) wire running from the gauge to the ignition switch. Check those wires for a good connection at both ends and, if vou have a multimeter, check for continuity (which means there is current flowing through the wire; you can also visually look for a broken or chafed wire between the connections). Good Luck!
- **VR-No**

Q I own a 1987 Johnson 200 outboard and I haven't had any luck with VRO pumps. I've replaced multiple pumps at 50-hour intervals since I purchased this boat. Do you have any recommendations?

STEVEN MACDOUGALL

Rancho Cucamonga, California





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Zzzzzt!

[**Q**] I installed a new Icom DSC VHF radio aboard my Rinker 265. It blanks out the screen when I key the microphone and will not broadcast unless I set it to 1 watt. What should I look for?

Also, I have a Raymarine autopilot that works fine except it is not reading the NMEA 0183 from my Humminbird 997 anymore. The same output is going to my radio, and the GPS location shows up there.

KEN MATTHYS

Highland, Indiana

[A] It sounds like there is too much resistance in the power line to the radio. It draws less on low power. Check the wires, including the fuse holder, for corrosion and good mechanical connections. As to your autopilot, the GPS is outputting the data, since your VHF displays it. The problem has to be the interface connection, so check both ends and any connections on those wires, as well as review the settings on your autopilot.

Spitting

[Q] I own a 2000 SeaSport cuddy-cabin fishing boat powered by a MerCruiser 350 MAG Bravo sterndrive. It has a 180-gallon fuel tank. Recently, with just 20 gallons in the tank, I went to the fuel dock and I added another 25 gallons of fuel. While adding the gas, some fuel was coming out of the fuel vent. What is the problem here?

JEREMY WITTHOLZ

New Orleans, Louisiana



[A] Mr. Wittholz, the vent hose likely has a low spot in its run. This low spot would hold fuel from previous fill-ups, and the air that gets displaced when you add fuel causes this puddled fuel to be forced out the vent.

Check out your fuel-vent plumbing for a sag-free run between the tank and the vent fitting. It could be that a strap or clamp may simply have let go with age and time.

ASK THE DOCTOR

Send questions with your name and address to: boatdr@boatingmag.com or The Boat Doctor, Boating, 460 N. Orlando Ave., Suite 200, Winter Park, FL 32789.

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NEW AUTO-TRIMMING DEVICE FOR MERCURY OUTboards and sterndrives, Mercury Active Trim, helps boats plane more quickly, levels the ride, makes driving in snotty water and boat traffic easier, and, according to test reports, delivers fuel savings of 14 to 54 percent. I took it for a ride to see.

Healthy Skepticism

Active Trim is a computercontrolled automatic-trim system that's available as a (pretty much) plug-in accessory for most Mercury outboards and sterndrives. Even coming from a racing background where accurate and critical trimming of the outdrive is a way of life, I think it's worthwhile.

But my first thoughts were not positive. Why is this needed? Computerized trim control already exists. But Active Trim is GPS speed-based. Other similar systems are rpm-based. Engine rpm and trim do not always correlate properly, while boat speed almost always does. Here's an example: Heading into a sweeping turn, you apply the

throttle to maintain boat speed. An auto-trim system that's rpm-based will increase positive trim — exactly the opposite of



what you want. Merc's system automatically decreases trim a hair as it senses GPS speed decreasing, which is the desired response when turning. Likewise, it reacts quickly to planing, increasing positive trim angle as the boat climbs out of the hole and speed increases.

Presets

Active Trim comes with five standard preselected trim profiles that cover the great majority of hull and propulsion types, including small runabouts, pontoons, bass boats, cruisers and even highperformance hulls.

You can start by entering

the profile that best suits your boat type, then fine-tune as you go.

Active Trim can be ordered with all new Mercury outboards and sterndrives, and retrofitted to most late-model

engines above 40 hp as long as the engine is Smartcraft-compatible. A 21/8-inch hole saw is all that's needed to install the display in the dash. It can act as a standalone unit. It retails for about \$500, depending upon the specific installation.

On-Water Results

The Active Trim display shows the profile selected and whether or not the system is engaged — that's it. Once engaged, touching the "on" button takes over the trimming function at all speeds. Hitting "off" on the dash display disengages it, as does manually using the standard "up" or "down" trim buttons. After overriding by manually manipulating the trim, Active Trim takes over again — simple.

I tried trimming the drives on several hulls manually to see if I could improve the top speed and fuel economy over the preset Smart Trim. I could in some cases; in others, I could not. When accelerating or turning, it's easy to see Active Trim adjusting the drive angle ever so slightly as speed increases. At cruise speeds, it adjusts for the best overall ride: here is where a crack operator could possibly do better. Active Trim can help novice boaters. but it also allows the seasoned skipper to relax a little at the helm. And maybe — just maybe — it can teach an old salt at the helm something new. - John Tiger Jr.





∠ Evinrude i-Trim

Evinrude's E-TEC G2 outboard motors come standard with an auto-trimming system called i-Trim. Evinrude i-Trim automatically trims the engine up and down based on speed, and returns the engine to full negative trim, preparing for the next acceleration. For more information, visit evinrude.com. — J.T.





Butanol Fuel Is Coming

WILL IT REPLACE ETHANOL IN FUEL?

N THE SPRING, EAST COAST MARINAS SELLING GULF FUELS WILL OFFER boaters ethanol-free gasoline under the trade name Gulf Marine. Instead of 10-percent ethanol, its clean air additive ("oxygenate") will be isobutanol at an EPA-approved concentration of 12.5 percent.

Readers who have followed previous stories about isobutanol in *Boating* will recall that this advanced biofuel comes from the same feedstocks (plant material) as ethanol, but that it has greater energy density (30 percent higher Btu value), and, most important for our boat engines, it does not absorb moisture or undergo phase separation. It also does not corrode or damage fuel tanks, fuel lines and engine components.

Tests run on waterways and in laboratories over the past five vears with the National Marine Manufacturers Association, the American Boat and Yacht Council, the U.S. Department of Energy, the U.S. Coast Guard, Bombardier Recreational Products (BRP) and several other marine engine manufacturers have shown that isobutanol in blends of up to 16.1 percent (B16, now EPA-approved for off-road fuels) are safe. In fact, at the 2015 Miami International Boat Show, BRP offered test rides aboard a 25-foot Crevalle powered by a 300 hp Evinrude G2 running B16.

This past summer, one marina on a lake in Missouri sold Gulf Marine, and a land-based Express Lube station in Fredericksburg, Texas, has had customers drive as far as 70 miles to buy the fuel for lawn tractors, chain saws and more. A go-kart track in Kemah, Texas (a Houston suburb), ran Gulf Marine exclusively. Meanwhile, the two companies producing isobutanol, Gevo (gevo.com) and Butamax (a joint venture of BP and DuPont; butamax.com), have reached an agreement in which each will pursue the development of markets for isobutanol: Gevo in iet fuel and Butamax in land fuels. Gevo produces the isobutanol for Gulf Marine.

The bottom line: East Coast boaters will have an opportunity to try this new biofuel in 2016. It will cost more, possibly \$1.50 to \$2 more per gallon. But with greater energy density and no more worries about water absorption, it will be worth exploring.

For more information on isobutanol, visit boating.mag/isobutanol.

— Capt. John Page Williams

GULF MARINAS ON THE U.S. EAST COAST

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Cedar Island Marina Hendel's Oil Company Inc. 34 Riverside Drive Clinton, CT 06413 860-669-8681 cedarislandmarina.com

Thamesport Marina 271 Pequot Ave. New London, CT 06320 860-437-7022 thamesportmarina.com

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Annapolis Yacht Basin 2 Compromise St. Annapolis, MD 21401 410-263-3544 yachtbasin.com

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Larsen's Marina 14 Old Sea Isle Blvd. Sea Isle City, NJ 08243 609-263-1554 larsensmarina.com

Lighthouse Marina 19 W. 6th St. Barnegat Light, NJ 08006 609-494-2305 lighthousemarinanj .com

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Gone Fishing Marina 467 E. Lake Drive Montauk, NY 11954 631-668-3232 gonefishingmarina78 .com Hudson Point Fishing 1 Anchorage Way Freeport, NY 11520 516-867-9608

Island View Marina 61 Price St. Patchogue, NY 11772 631-447-1234 islandviewmarinali.com

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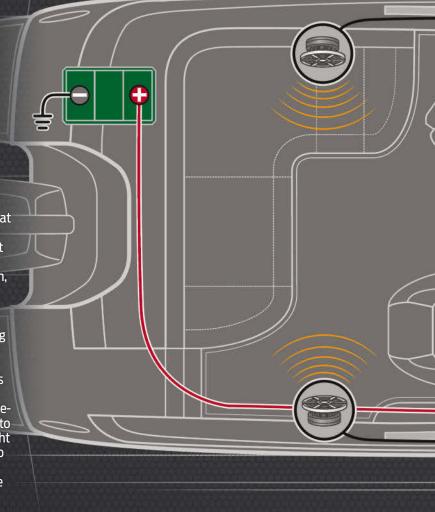
WEEKEND WORKBOOK

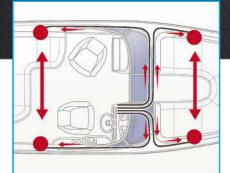
Installing Flush-Mount Marine Speakers

PROPERLY INSTALLED MARINE STEREO SPEAKERS OPTIMIZE ONBOARD SOUND QUALITY.

Installing basic flush-mount stereo speakers on a boat is relatively easy, but there are a few tricks that help to optimize the sound quality and ensure the longest possible life of the speakers. First and foremost, buy marine speakers. Brands such as Boss, Clarion, Fusion, JBL, JL Audio, Jensen, Kicker and Polk offer special flush-mount, coaxial speakers designed for the wet, corrosive environment of a boat, with features that include waterproof cones, sealed magnets, mounting gaskets, stainless-steel hardware and UV- and rust-resistant covers.

With the exception of a subwoofer, most speakers come in pairs, and most deck boats and runabouts have room for one to three pairs of speakers. Most stereo units have speaker outputs for as many as three to four pairs. Additional speakers and a subwoofer might require a separate amplifier. Here are the key steps to install flush-mount, coaxial speakers based on guidance provided by ASA Electronics, which includes the JBL. Jenson and Polk brands. — Jim Hendricks

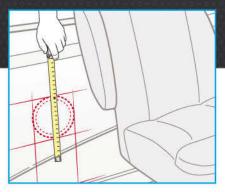




LAYOUT THE SYSTEM Decide how many speakers and where to mount them. For the best sound quality, each pair should be opposite each other and face the centerline with as much distance as possible between the two. Most deck boats and runabouts have room for one to three pairs of speakers, often along the inwales or seat bases. Where possible, point speakers toward the listeners' ears for the best audio possible. Now is also a good time to run speaker wires from the stereo unit to each spot, securing the wires along their entire runs.



AREAS TO AVOID Don't mount speakers where they are easily kicked and damaged (e.g., at deck level) or bathed in spray (e.g., by a transom splashwell). Stay clear of curved and upholstered surfaces. Locate each speaker a safe distance from sensitive equipment (as detailed in your installation manual), such as a compass. The speaker magnet can cause interference. If the back of the speaker is located in a storage area, ensure that the speaker wiring is protected from snagging. Wire looms and zip ties are good supplies to have on hand for this reason.



CHOOSE YOUR SPEAKERS Measure each location, then choose speakers based on available space. Today's marine speakers tend to be deeper than in the past, reflecting larger magnets and more robust construction. Speakers need not match in size. For instance, you might be able fit a pair of 6½-inch-diameter speakers in the aft cockpit, but only 5½-inch-diameter speakers in the bow area. Aesthetics dictate using the same brand and grill design for each. In this example, we chose Polk Audio 6½-inch, 180-watt coaxial round marine speakers.

GETTING STARTED

SKILL LEVEL



TIME TO COMPLETE

5 HOURS

TOOLS AND SUPPLIES

- ► Polk Audio DB651 61/2-inch. 180-watt coaxial marine speakers (\$111.99/pair; polkmarine.com)
- Marine-grade speaker wire (length depends on the boat size and the number of speakers)
- ► Crimp-on female spade terminals
- ► Diagonal cutters
- ▶ Wire strippers
- ► Crimping tool
- ► Power drill with 1/2-inch chuck (needed for hole saw) and bits
- ▶ 5-inch hole saw
- ► Screwdriver set
- ► Electricians snake (for running wires and cables)
- ► Spool of cord (for pulling wires and cables)
- ▶ Wire looms and zip ties

77//2

If installing a speaker in a relatively thin aluminum or fiberglass sub-strate, throughbolt it with nylon-locking nuts and backing washers to prevent the speaker from vibrating loose. Also, use masking tape in the area to be cut and drilled to prevent the gelcoat from crack-ing. When a flat area cannot be found, caulking the speaker, once installed, may be necessary.

SPEAKER SPARKLE

A number of marine speakers today feature LED illumination. Fusion's Signature Series speakers. for example, offer either a blue or white glow, depending on how vou wire 12-volt power to each

speaker. Wired conventionally (red to positive, black to negative), illumination is blue; reverse the polarity for white. Install a 3-amp fuse to protect the circuit and a switch in the power line to turn the LFD on or off. — *I.H.*

the template to the mounting surface. Use Ta 5-inch hole saw to cut the main hole. (Oval speakers will require a saber saw to cut the oblong hole.) Then drill each of the mounting holes. Bevel each hole to keep the gelcoat from cracking. Place the foam gasket on the back of the speaker, aligning it with the mounting holes, and attach the speaker wires to the spade fittings in the speaker, making sure the polarity is correct.

with the mounting screws.

INSTALL EACH SPEAKER Trim and attach

Slide the speaker into the main hole and secure it



Paying For Pleasure

Brochures and magazine articles match the boat's details to your desires. Boat show or brokerage visits confirm it's the one, and you've even begun contemplating favorite excursions and new adventures aboard. But what's the best way to pay for your perfect boat? Three industry experts weigh in. - Capt. Vincent Daniello

Home Base

When financing a boat, think about tapping into your home's value, "You might be paying interest, only at less than prime. That's really cheap money," says Rob Messenger, senior vice president of Title Mortgage Solutions (titlemortgage.com). He's referring to a line of credit against home equity. Typically, 10 years of interest-only payments lead into another 10 years of monthly payments to eliminate the balance. Rates and payments adjust monthly.

A second mortgage for a set dollar amount usually fixes the interest rate and payments for 10 or 15 years. Refinancing a first mortgage comes with significant closing costs (which are often absorbed by lenders in other home-equity solutions). Rule of thumb — consider refinancing with at least a 1-percent interestrate improvement. You'll be a cash buyer with no boat model-year restrictions or survey issues. But you won't get that home-equity cash back for a swimming pool, vacation or emergency.

Bank Rate

Also consider looking into your

bank can make things easier from a credit perspective," says Michael Bryant, president of the National Marine Lenders Association (marinelenders.org). On the other

hand, nonspecialized loan officers may overreact to routine survey deficiencies, leaving you scrambling before closing. Look for a marine lending department and check its experience with boats similar to the one you're after.

Join the Marine (Lenders)

Traditional boat loans offer terms and interest rates similar to second mortgages. Depending on the boat, they often qualify for the tax breaks of a home mortgage too. "Marine loan brokers offer the widest range of lending options,"

income, whereas another might finance an atypical boat.

Dealer Sourced

Boat dealers usually arrange

financing through local and national lenders. Having just one transaction for both the boat and the loan often makes this the easiest course, "Above all, the dealer wants to make sure you have a trouble-free delivery," says Jim Kelaita, vice president of financial services for Marine-Max (marinemax .com). "We're there to make your boating dreams come true."

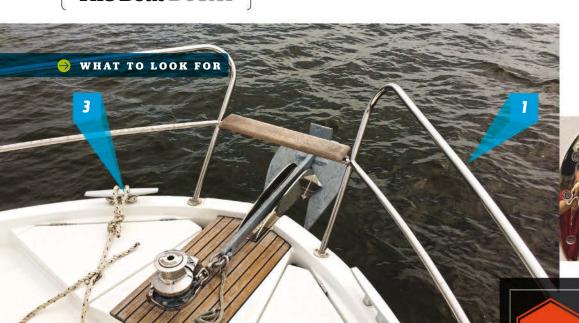
United States tax code allows a "second home deduction" that may apply if the boat possesses "sleeping, eat-ing and toilet" facilities. This is allowed for one primary residence and just one cannot take the deduction if you already deduct interest on two home loans. See a tax professional.

OUICK

Do Your Homework

Know the dollar range vou're prequalified for based not only on your credit but also the individual lender's maximum - and minimum - loan size.





Anchorability

Buying a new boat? You need to consider what I call "anchorability." Whether you want to stop for a swim, stay for the night or keep off a lee shore, or if you break down and need to stay put while awaiting help, the ability to anchor can prove crucial. Here are some features I suggest you look for. – Joe Freidman

BOW RAIL For safety, there should be a bow rail on the foredeck. The American Boat and Yacht Council (ABYC) standard H41 requires life rails or lifelines to be 24 inches tall. This rail should be fastened with bolts and backing plates. (To check, look in the anchor locker, and look up and back.)

PULPIT A nice feature on some boats is a molded-in bow pulpit. This allows for the anchor roller and anchor to be positioned well ahead of the bow. A strong pulpit will help prevent the anchor and the anchor chain from damaging the hull during anchoring and recovery.

cleats cleats should be fastened with backing plates and bolts. The cleat horn should be large enough to handle the rode diameter, including a full turn around the base, a figure eight and a half hitch. As a rule of thumb, Boating suggests cleats be at least 1-inch long for every one-eighth inch of line diameter.



ANCHOR LOCKER The bow locker should be watertight to the hull; look inside and make sure its bulkhead comes all the way up to the underside of the deck. It should also drain overboard for safety and so that

your cabin and bilge don't stink like bottom mud. A fitting to secure the bitter end of the rode is a plus.

These fittings guide the anchor line off to the side. They're especially useful if you need to deploy two anchors. Chocks also come into play by keeping the line in one place, preventing your rode from sweeping other hardware — like your navigation

light — right off the deck as the boat swings on the anchor.

BOW ROLLER(S) A sturdy bow roller is helpful when a windlass is used. Check the roller to see what type of rode it will accommodate — it may have a rope groove or a chain slot. Also be sure to look for an adjustable pin or bail to prevent the rode from jumping clear of the roller.

ANCHOR LOCK/
CHAIN STOP This
keeps the anchor in
place when stowed in the
roller. A pin goes through
the chain or shackle.
Another type of chain
stop is a cable and hook.
Yet another is simply a
length of line cleated off
securely. In any event,
never rely on a windlass to
hold an anchor, whether
underway or at anchor.
Always use a chain stop.



SCAN

1/15

In areas with

rock, coral or

known bottom

hazards, rig a

trip line that's

run along the

rode with lightweight

breakout

lashing. Scan

this tag or visit

boating.mag/

freeanchor to

learn how.



Windlass

There are deck-mounted and enclosed models suitable for all chain, rope and rope/chain combinations. Operated from the helm, they quickly deploy and recover anchors in most situations. Wired or wireless remote controls and/or deck-mounted foot controls can prove helpful. — J.F.

PHOTOS: (CLOCKWISE FROM TOP LEFT) KEVIN FALVEY (2), COURTESY LEWMAR LIMITED (2), KEVIN FALVEY



FORMULA SUPER SPORTS HAVE IT ALL satisfying speed, sleek silhouette and a complete cabin to

take you to ports you once only hoped to explore. And for 2016, the 370 SS cockpit adds more versatility than ever in a design flow that includes everyone aboard and easily converts for all the activities you enjoy. In perfect tune with Formula's trendsetting reputation, expertly presented textures and colors, recessed alcoves with stainless railing, integrated, blue LED lighting and cupholders set in eye catching Corian® position the 370 SS in the forefront of marine design. The aft facing lounge is electrically activated to create a generous sunpad. Add the sleek hardtop with optional Sure Shade if you like.









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Tests (#2928)

Scout 420 LXF

ENTER-CONSOLE BOATS HAVE ADVANCED from Spartan-like fishing platforms to mini yachts. The new 420 LXF - Scout's largest model yet - isone of the latest examples, blending angling utility with luxury, classic styling, new construction technology, a stephull, abundant power and sophisticated onboard systems.

This model offers cruising comfort and the ability to entertain guests, qualities that make the 420 LXF a top candidate as a yacht tender. It's available with a heavy-duty towing eye (\$3,714) for just that purpose.

If you're looking for a comparison, the new Regulator 41 (\$793,325 with quad Yamaha F350s) also integrates comfort with fishing features in that company's largest boat yet.

To ensure structural strength while also keeping the 420 LXF as light as possible, Scout turned to vacuum-infused epoxy-resin construction for the first time. This technique eliminates bubbles and minimizes shrink as the boat cures. Also, there's virtually no print-through on the hull's exterior.

A massive aft cockpit, measuring 9 feet 4 inches wide and 4 feet 4 inches along the centerline, not only lends itself to fishing but also socializing. For anglers, there are seven

NOTEWORTHY

Seating and coaming **bolsters** aboard

the 420 LXF feature highend, soft-touch **Ultrafabrics** upholstery with double stitching reminiscent of a luxury automobile. stainless-steel flushmounted rod holders across the transom, an 80-gallon transom livewell and a pair of 108-gallon fish boxes.

Fold out the transom bench-style seat for a relaxing entertainment setting. A trio of highback seats on the aft side of the central module adds to the social atmosphere. Extend a motorized awning from the hardtop for shade.

Raw- and freshwater washdown hoses pull out from ports on the underside of the hardtop. With a quick

tug, each automatically retracts. A recessed boatswain's locker on the starboard side of the console exterior stows deck brushes, gaffs and boat hooks.

In another innovative design, a door on the port side cantilevers outward on hydraulics to become to a 6-foot-long

A broken sheerline offers classic styling while a retractable bow table, expansive helm and posh forward loungers create the aura of a yacht.













by 2-foot-4-inch-wide dive platform. It folds back into place so cleanly, you'd never know it was there. However, the design negates its use as a boarding door at floating docks.

A transom door in the starboard quarter offers access to the full-width platform forward of the outboards. The 420 LXF has no splashwell, so you can traverse from side to side.

Within the central seating module is a step-down systems compartment where we found an optional Seakeeper NG5 gyrostabilizer (\$58,000). This minimized roll on a lumpy day outside the inlet. A Koehler 6 kW diesel generator below the aft deck powered the gyro and two air-conditioning systems (one for the cabin and another for the bridge deck), and it also powers other 120-volt AC equipment while away from the dock. A shore-power cord unwinds from within the transom. To entertain the crew, there's an outdoor galley with an Isotherm drawer-style fridge/freezer/ice maker, an electric grill and a top-opening cooler.

Three-across helm seats feature flip-up bolsters and armrests. The center console has a three-piece tempered-glass windshield. Scout chose to leave a small space between the windshield and the hardtop for fresh air, but it also lets in errant spray. We'd like to see those gaps closed to protect the 59-inch-wide helm, which accommodates three flush-mounted Garmin 8215 15-inch multifunction displays. The helm also includes CZone digital switching.

Forward of the console, a lounger entices guests with its angled backrests and fold-down armrests. In the bow, U-shaped seating surrounds a motorized teak table, which descends to become a sun pad (with filler cushions). When it's time to fish, retract the table completely.

The console cabin, accessible from a portside companionway, features $6\frac{1}{2}$ feet of headroom and the ambience of a private jet. Lower the wood dining table to convert the area to a berth measuring 5 feet 1 inches long and 7 feet wide from which you can enjoy a 32-inch TV. Windows on each side open for fresh air and include dual-action shades for privacy. Accent lighting sets the mood.

The cabin galley features wood-veneer cabinetry, a faux granite countertop, a sink with a brushed stainless-steel backsplash, hot and cold fresh water, a drawer-style fridge, a microwave and a two-burner electric stove. Hardwood flooring leads to the aft private head compartment with the shower separated from the vanity and marine toilet by a clear acrylic bi-fold door.

The dual-stepped hull of the 420 LXF ushers a cushion of air under the running surface to boost speed and efficiency. We gathered data on a boat powered by four Mercury Verado 350 outboards. The big Scout vaulted to 30 mph in 8.8 seconds en route to a top speed of 56.8 mph at 6,350 rpm. The most economical cruising speed occurred at 37.7 mph (4,500 rpm), where the quad 350s burned 51 gph, resulting in 0.98 mpg and a maximum range of 440 miles based on the 500-gallon fuel capacity.

The new 420 LXF offers a pleasing balance of angling functionality and comfort, surrounds it with style and sophistication, and propels it with an efficient hull and ample power. If you're looking for a big center-console that you can customize to your heart's content, put Scout's biggest boat ever near the top of the list. $-Jim\ Hendricks$

Check out our photo gallery of the Scout 420 LXF. Scan this tag or visit boatingmag.com/2928.



High Points

- Port dive door features an outward-opening platform; it folds back almost seamlessly.
- ➤ Vacuum-infused epoxy-resin construction offers high strength with less weight and eliminates print-through.
- Step-down console cabin offers the ambience and comfort of a private jet.

Low Points

- Unique design of the dive door and platform negates its use as a boarding door at floating docks.
- Small spaces between the windshield and the hardtop can let in rain and spray; we'd like to see the windshield meet the top, with vents for fresh air when needed.

LOA: 42'2" (without engines) ▶ Beam: 13'1" Draft: 1'4" (engines up) ▶ Displacement: 15,800 lb. (dry, no engines) ▶ Transom Deadrise: 22 degrees ▶ Bridge Clearance: 8'5" (top with no tower, with outriggers) ▶ Max Cabin Headroom: 6'6" ▶ Fuel Capacity: 500 gal. ▶ Max Horsepower: 1,675 ▶ Available Power: Quad Mercury or Yamaha outboards to 1,400 hp total

Price: \$767,076 (base with quad Mercury Verado 350s)

▼ BOATING Certified Test Results

	SPEEL)		EI	OPERATION						
rpm	knots	mph	gph	naut. mpg	stat. mpg	n. mi. range	s. mi. range	angle	sound level		
1000	6.17	7.10	5.60	1.27	1.46	571	656	0	68		
1500	8.17	9.40	8.40	1.12	1.29	504	579	1	66		
2000	9.73	11.20	15.20	0.74	0.85	332	381	1	69		
2500	11.73	13.50	24.10	0.56	0.64	252	290	3	71		
3000	16.25	18.70	32.30	0.58	0.67	261	300	4	72		
3500	25.98	29.90	35.60	0.84	0.97	378	435	5	73		
4000	31.89	36.70	43.20	0.85	0.98	382	440	5	74		
4500	37.71	43.40	51.00	0.85	0.98	383	440	4	76		
5000	43.19	49.70	61.80	0.80	0.92	362	416	3	81		
5500	47.53	54.70	74.10	0.74	0.85	332	382	3	84		
6000	52.31	60.20	97.50	0.62	0.71	278	320	3	86		
6350	56.57	65.10	122.00	0.53	0.61	240	276	3	89		
MOST ECONOMICAL CRUISING SPEED											

HOW WE TESTED

ENGINES: Quad 350 hp Mercury Verado 350s DRIVE/PROPS: Outboards/Mercury Revolution 4.14% x 21" 4-blade stainless steel GEAR RATIO: 1.75:1 FUEL LOAD: 475 gal. CREW WEIGHT: 580 lb.

Scout Boats Summerville, South Carolina; 843-821-0068; scoutboats.com





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Tests (#2929)

Crownline

270 SS

IKE A CROW, WE'RE ATTRACTED TO SHINY things. Which is why Crownline boats have always caught our eye. Abundant stainless steel, polished to a mirror finish, has always been a Crownline styling signature. And sure enough, from the engine-bay vents to the windshield header, the new 270 SS was gleaming in the morning sun when we walked down the dock for our test. A 27-foot bowrider used to seem really big, but these days it's almost midsize, and the field is crowded. Crownline seeks separation with a host of luxury features and its patentedand-proven F.A.S.T. Tab running surface.

The current bowrider-design focus is on building versatility into the transom area — a simple sun pad over the engine no longer cuts the mustard with boat-show crowds. Crownline makes a good "social swim" effort on the 270 SS. There's a deep pad over a motor box that doubles as a seat bottom serving the cockpit and the transom, thanks

NOTEWORTHY

The stringer and transom

cores are

laminated treated wood, encapsulated in fiberglass and resin, and backed by a lifetime warranty. It sounds like old-school construction, but wood absorbs more noise and vibration than composites.

mat material.

It's hard to find a straight edge in the cockpit, as the port and starboard seat bases have polygon bases mounted on the fiberglass sole, and curved backrests shaped to promote comfort and position passengers for conversation. Bottom cushions are hinged and supported with stainless-steel struts

to a pivoting backrest powered by an electric motor. Lowered all the way inboard, the backrest becomes the final section of a good-size, flat lounge. Other transom features include a pair of speakers for the audio system, a really stout (polished stainless steel) boarding ladder, a transom shower and a wet-gear stowage bin. A pull-out cord feeds an optional battery charger (\$540) that would be really handy if the boat is used intermittently. The platform surface is covered with soft



F.A.S.T. Tabs aerate the running surface, reducing drag. The bow is comfortable, the helm is functional, and stowage is plentiful.









(sorry, not polished) and have a lipped edge to keep water out of the stowage areas below. A 25-quart cooler is stashed within the starboard seat base. This entire seat can be deleted and replaced with an optional entertainment console that incorporates a sink (polished stainless, naturally) set in a countertop with either stowage or a refrigerator below. Each bucket seat has a gleaming stainless-steel insert on the back.

The polished stainless-steel sink in the head compartment is standard, as is a portable lavatory. The boat we tested was the first off the line for a photo shoot and was not equipped with a stowage bin that will be built into the head door on production examples. We expect to find a huge ski locker in a runabout this size, and the 270 SS has got one. An extra detail is a shallow stowage drawer under the deck that can be pulled over the ski-locker opening, which might be deep enough to hold some PFDs, or certainly lines and assorted small gear items.

There's more ergonomic seating in the bow where the bottom cushions are contoured hot-tub style to support the back and legs when a passenger is facing forward. There's a hatch in front of the windshield that covers a large mesh bag designed to hold two big fenders. Another 25-quart cooler fits below the forward bow seat.

The 270 SS is equipped with the full complement of Crownline's running-surface features, including "vortex generators" at the aft hull corners said to solve stern wander at no-wake speeds, and vented chines to reduce drag and improve efficiency at speed. The vents are guarded by the finlike F.A.S.T. Tabs, which are designed to keep those vents from producing handling quirks. It all seems to work. The

270 SS glides along on plane for some distance after the throttle is chopped, an indication that the vents do indeed introduce enough air under the running surface to reduce drag. For a boat its size, the 270 SS also feels especially agile in turns.

Propelled by a 300 hp MerCruiser 350 MAG/Bravo Three power train, the 270 SS planed smartly with minimal bow rise, but top speed was a modest 45 mph. This boat will be an ideal candidate for the new 350 hp MerCruiser 6.2-liter engine when it comes on line. The 430 hp 8.2-liter MerCruiser is the top option but adds \$20,000 to the base price. A long list of options, including several upholstery choices, audio upgrades, multiple hull graphic designs, and towers and arches, make it possible to really personalize the 270 SS, which is a throwback in these days of strict packaging. The polished stainless steel is always standard. - Charles Plueddeman





High Points

- Two carry-on coolers each stow "handles up."
- Raymarine A65 plotter is standard equipment and built into the helm.
- Latches on both the head compartment and ski locker have locks.
- Head compartment is equipped with a light exhaust fan and an opening port light.

Low Points

- ▶ When the pivoting backrest is angled for comfort facing aft, the cockpit side of the seat is not usable.
- Anchor locker does not have clips or a bracket to hold an anchor.
- ▶ More grinder, please a few rough edges are left inside the seat bases.
- LOA: 27'3" ▶ Beam: 8'6" ▶ Draft (max): 3'3" ▶ Displacement (approx.): 5,200 lb.
- Transom Deadrise: 19 degrees ➤ Bridge Clearance: 5'0" ➤ Fuel Capacity: 55 gal.
 Water Capacity: 15 gal. ➤ Max Horsepower: 430 ➤ Available Power: Single MerCruiser gasoline sterndrive up to 430 hp

Price: \$98,250 (with test power)

BOATING Certified Test Results

	SPEED			El	OPERATION					
rpm	knots	mph	gph	naut. mpg	stat. mpg	n. mi. range	s. mi. range	angle	sound level	
1000	4.43	5.10	1.60	2.77	3.19	137	158	3	70	
1500	6.43	7.40	2.80	2.30	2.64	114	131	5	76	
2000	8.43	9.70	5.40	1.56	1.80	77	89	8	80	
2500	17.29	19.90	7.10	2.44	2.80	121	139	8	80	
3000	21.55	24.80	8.60	2.51	2.88	124	143	7	81	
3500	27.03	31.10	10.30	2.62	3.02	130	149	5	85	
4000	31.89	36.70	13.10	2.43	2.80	121	139	5	86	
4500	34.41	39.60	15.90	2.16	2.49	107	123	4	87	
5000	39.28	45.20	23.10	1.70	1.96	84	97	4	93	
5100	0.00	45.00	24.00	0.00	1.88	0	93	4	93	
MOST ECONOMICAL CRUISING SPEED										

ENGINE: Single 300 hp MerCruiser 350 MAG/Bravo Three sterndrive DRIVE/PROP: MerCruiser Bravo Three 24-inch propset GEAR RATIO: 2.20:1 FUEL LOAD: 30 gal. CREW WEIGHT: 600 lb.

Crownline Boats West Frankfurt, Illinois; 618-937-6426; crownline.com



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Sea Ray 21 SPX OB

PACE IS AT A PREMIUM ABOARD ANY 21-foot bowrider. Sea Ray's 21 SPX OB maximizes it better than most. Gunwales are slim to increase cockpit space, and an 8-foot-6-inch beam stretches longer than the norm. A gentle arc to the bow widens the forward cockpit, rather than squeezing it to a point. The result is a surprising 12-passenger capacity. Most will find a seat on the main cockpit's huge L-shaped lounge and broad portside bench. Position the latter's removable seat back to the rear and you have a forward-facing chaise. Move it one

EXTRA POINT

Four trim packages — including ones for watersports and fishing — combine with five gelcoat colors and two graphic styles, all customizable.

cushion length forward to make a forward-facing seat behind the port console and an observer seat aft. Or add a filler cushion against the port console to fashion an aft-facing lounge. The filler stows neatly below a hinged seat cushion. A sun pad awaits those who want to soak up the rays. Tilt up its forward half and you have an aft-facing

couch for two when hanging at the sandbar.

The SPX joins a growing list of models that offer a choice of sterndrive or outboard propulsion. Below the OB's sun pad, the real estate normally reserved for a block of iron is now ready for more than 13 cubic feet of gear. There's more room in the partitioned compartment to starboard, as well as below the transom walk-through. The latter offers access to the battery. Even the adjoining step is ready for gear.

In fact, stowage is above average throughout. There's a dedicated spot for a carry-on cooler below the starboard portion of the L-shaped lounge, and a cooler with a drain below the aft seat. Add the port console, lockable glove box and generous ski locker, and you won't be left wanting space.

While options include a 200 hp Mercury Verado Pro, our test boat's lightweight Mercury 150 outboard offered plenty of power for our minimal test load, jumping onto plane in less than 4 seconds with very little bow rise. We reached the 30 mph benchmark in less than 8.5 seconds, and speed topped out at 46.6 mph in far from ideal conditions. — *Jeff Hemmel*

MORE ONLINE

To see a photo gallery of the Sea Ray 21 SPX OB, visit boatingmag.com/2930.



High Points

- Outboards typically devour swim platform space, but Sea Ray maintains adequate room to port and starboard, plus adds a connecting walkway.
- ▶ Interior is not molded and seamless (being finished off with composite lumber), but storage areas look neat, avoiding potentially soggy carpet.
- Generous ski locker includes woven rubber matting to cushion contents, a lip to drain away water, and a gas shock to keep the lid open and not bang down on fingers.

Low Points

- Lack of a dedicated anchor locker means the anchor and rode will need to find a less secure — and less convenient — home elsewhere.
- Don't expect a cushy interior. The lack of cushion contours and minimalist seat backs give the interior a somewhat utilitarian feel.
- Addition of a hinged cushion would reduce hassle when accessing contents in the carry-on cooler.

Toughest Competitor

Outboard power is still rare in this size range. Check out Starcraft's upscale SCX 210 OB bowrider/deck-boat crossover (\$48,165 with a Yamaha F200). It is 3 inches longer and shares the same 8-foot-6-inch beam, a width the builder carries nearly the entire way forward, thanks to a pickle-fork bow.

►LOA: 21'6" ►Beam: 8'6" ► Draft: 2'7" ► Displacement: 3,400 lb. ► Transom Deadrise: 19 degrees ► Bridge Clearance: 3'10" ► Fuel Capacity: 40 gal. ► Max Horsepower: 200 ► Available Power: Mercury outboards to 200 hp

Price: \$39,111 (with test power)

▼ BOATING Certified Test Results

	SPEED			EF	OPER/	ATION						
rpm	knots	mph	gph	naut. mpg	stat. mpg	n. mi. range	s. mi. range	angle	sound level			
1000	4.00	4.60	1.40	2.86	3.29	77	89	0	72			
1500	5.65	6.50	2.20	2.57	2.95	69	80	3	75			
2000	6.78	7.80	3.90	1.74	2.00	47	54	7	75			
2500	15.82	18.20	5.00	3.16	3.64	85	98	3	78			
3000	22.46	25.85	8.20	2.74	3.15	74	85	2	87			
3500	27.89	32.10	10.10	2.76	3.18	75	86	2	89			
4000	33.19	38.20	13.30	2.50	2.87	67	78	2	86			
4500	36.63	42.15	15.00	2.44	2.81	66	76	2	88			
4900	41.23	47.45	17.00	2.43	2.79	65	75	2	89			
MOST EC	MOST ECONOMICAL CRUISING SPEED											

HOW WE TESTED

ENGINE: Mercury 150 EFI FourStroke DRIVE/PROP: Outboard/Mercury Black Max 15" x 17" 3-blade aluminum GEAR RATIO: 1.92:1 FUEL LOAD: 30 gal. CREW WEIGHT: 375 gal.

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Bayliner Element F18

HEN I TESTED THE ORIGINAL Bayliner Element, my first thought was that it would make a great bay-boat platform. Clearly, the powers that be at Bayliner felt that way too because they built the promising and eminently affordable Element F18. It's a center-console that capitalizes on the Element's stable M-hull design. The M-hull looks

EXTRA POINT

The raised **2-inch lip** around

the bow- and transom-casting platforms keeps fishing gear — and anglers — from sliding off.

almost like a classic cathedral-style hull, only it carries the sponsons farther aft. It also carries the beam forward. The original intent was to enhance form stability to eliminate some of the rock and roll that turns off many first-time boaters. Isn't stability one of the most desired traits in a coastal fishing platform?

Bayliner made other changes to convert the

Element to fishing duty. The most obvious is ditching the dual-console design in favor of a center-console helm that can be manned either standing or sitting. What you might not notice is that Bayliner also raised the cockpit deck 3 inches to create a higher fishing vantage point. Designers also added outboard-draining scuppers to create a self-bailing cockpit — a desired feature both

for safety and for hosing down the cockpit after a day of successful fishing.

The center console sports three vertical rod holders per side and has a full windshield adorned with a sturdy grab rail, which is a must for passengers who prefer to stand while underway. There's a small bench-style seat forward with a padded backrest. There are elevated casting decks in the bow and along the transom with a built-in 27-gallon livewell in the aft deck. There's the option to add a second livewell under the forward console seat. The bow is pre-rigged to mount a trolling motor, and the dash has room to mount electronics. Additional rod holders can be found in the internal gunwales with stowage for two rods per side.

Our boat featured the optional T-top, which no doubt robbed a mile or two off our top-end speed. Still, on test day we hit 40 mph. Thanks to the efficient M-hull we hopped on plane in less than three seconds, with minimal bow rise, and reached 30 mph in just over nine seconds. — Pete McDonald

MORE ONLINE

To see more photos of the Bayliner Element F18,



- ► Six cleats, including the ones midship, make for easier mooring or tying off
- Aft casting platform features flip-up jump seats.
- Optional sun-pad filler, transom swim steps, sport arch and board racks convert the F18 to family duty.

- ▶ Needs rod holders in the aft gunwale for trolling.
- ► Stowage hatches have straps to keep them open, but they need bumpers to prevent slamming.

Toughest Competitor

► The Sea Chaser 19 Sea Skiff (\$24,562 with a 90 hp outboard) is 18 feet 7 inches (length overall) with an 8-foot beam and a more traditional V-hull design.

►LOA: 18'2" ▶Beam: 7'5" ▶Draft (max): 3'0" ▶Displacement (approx.): 2,000 lb. ▶Transom Deadrise: N/A ▶Bridge Clearance: 7'0" ▶Fuel Capacity: 30 gal. ▶Max Horsepower: 115 ► Available Power: Mercury gasoline outboards

Price: \$21,485 (with test power)

BOATING Certified Test Results

SPEED				E	OPERATION				
rpm	knots	mph	gph	naut. mpg	stat. mpg	n. mi. range	s. mi. range	angle	sound level
1000	3.48	4.00	0.70	4.97	5.71	134	154	1	68
1500	4.00	4.60	1.00	4.00	4.60	108	124	1	69
2000	6.26	7.20	1.80	3.48	4.00	94	108	2	74
2500	7.13	8.20	3.00	2.38	2.73	64	74	4	76
3000	13.38	15.40	4.10	3.26	3.76	88	101	3	78
3500	17.81	20.50	5.50	3.24	3.73	87	101	2	80
4000	21.38	24.60	8.00	2.67	3.08	72	83	2	82
4500	24.59	28.30	9.50	2.59	2.98	70	80	2	83
5000	26.68	30.70	10.00	2.67	3.07	72	83	2	85
5500	30.15	34.70	11.00	2.74	3.15	74	85	2	88
MOST EC	ONOMICAL	CRUISING SE	PEED						

ENGINE: Mercury 115 FourStroke DRIVE/PROPS: Outboard/13¾" x 15" 3-blade aluminum GEAR RATIO: 2.07:1 FUEL LOAD: 15 gal, CREW WEIGHT: 170 lb.

Bayliner Boats Knoxville, Tennessee; 360-435-8957; bayliner.com



Come be seduced by the sound at the 2016 Miami Boat Show - Booth C498.





Premier 270 Velocity

WE SAY The new Premier 270 Velocity has a sleek, sporty look that separates it from most of its boxier pontoon compatriots. How did Premier achieve this? By installing fiberglass components fore and aft. The sweptback bow component gives the 270 Velocity a sports-car appearance. Inside the boat, it creates sexy yet sturdy seat bases that provide dry stowage underneath. With

the aft fiberglass component, Premier constructed twin lounges with rearfacing backrests so they can serve double duty as sofas or run recliners. All the seats are covered with Premier's stylish new Heritage fabric. Our test model featured the Atomic Red accent package, which amps up the sports-car feel.

Thanks to the PTX package, Premier is justified in nicknaming this boat the Velocity. Not so much for its top-end speed — with twin 200 hp Mercury FourStrokes, we maxed out at just under 42 mph — but because the hole shot was instantaneous, and the boat hit 30 mph in 8.5 seconds. From the raised fiberglass Liberty helm, you can feel the midrange oomph. Premier also improved handling and cornering by extending the center tube in the PTX package farther forward at the bow than the two outer tubes. This helps the boat execute tight turns with inboard heel.

Extended platforms at the bow and stern are great for beaching or swimming at anchor. -Pete McDonald

WHO'D WANT ONE Boaters looking for a 'toon with a cutting-edge design.

ANOTHER CHOICE The Harris Crowne SL 250 (\$93,035 with a 300 hp Mercury Verado) has fiberglass parts.

BOTTOM LINE \$111,727 (as tested); pontoons.com

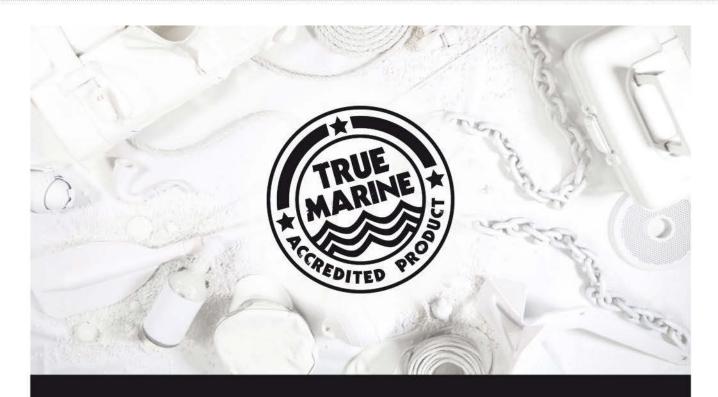
BOATING Certified Test Results

	SPE	ED		EF	-	OPERATION			
rpm	knots	mph	gph	naut. mpg	stat. mpg	n. mi. range	s. mi. range	angle	sound level
1000	3.30	3.80	6.20	0.53	0.61	38	44	0	66
1500	4.95	5.70	8.20	0.60	0.70	43	50	1	65
2000	5.39	6.20	10.60	0.51	0.58	37	42	3	68
2500	11.73	13.50	14.20	0.83	0.95	59	68	3	70
3000	15.21	17.50	19.70	0.77	0.89	56	64	2	72
3500	18.60	21.40	23.10	0.81	0.93	58	67	2	73
4000	21.38	24.60	26.60	0.80	0.92	58	67	2	74
4500	24.85	28.60	30.20	0.82	0.95	59	68	2	75
5000	27.55	31.70	33.70	0.82	0.94	59	68	2	78
5500	30.41	35.00	36.40	0.84	0.96	60	69	2	80
6000	33.02	38.00	41.20	0.80	0.92	58	66	2	82
6500	36.24	41.70	43.70	0.83	0.95	60	69	2	85
MOST EC	ONOMICA	L CRUISING	G SPEED						

LOA: 28'5" ➤ Beam: 8'6" ➤ Draft: 3'0" ➤ Displacement (approx.): 2,640 lb. ► Fuel Capacity: 58 gal.

HOW WE TESTED

ENGINE: Twin 200 hp Mercury Verados DRIVE/PROPS: Outboards/Enertia 15¾" x 18" 3-blade stainless steel GEAR RATIO: 1.85:1 FUEL LOAD: 40 gal. CREW WEIGHT: 520 lb.



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INTRODUCING THE SCARAB WAKE EDITION





Yamaha 190 FSH Sport

WE SAY We think it's about time Yamaha brought out a bay boat. Think of the applications: shallow draft for flats; no prop below the keel to dig up grass flats; and, for the convenience of owners, Yamaha's one-stop shopping warranty that covers all the components of the boat and power plant.

Our test boat boasted a clean transom with no motor rigging to stumble over

and no outboard to snag fishing lines. For casting, the transom platform is uninterrupted and so low that it's like standing on the water. That's because the jet pump and 1.8-liter engine are completely contained within the hull and under the deck. Yamaha tapped the jet pump to also provide Jet Wash, its version of a raw-water system to clean up after netting bait or bloodying the deck. That was smart, and there's no pump to maintain, but if you need it on the flats, you have to run the engine.

The helm station had a surprise: The optional T-top comes off for stowage, which is another smart trick by Yamaha engineers you won't find on traditional bay boats. And, yes, there is plenty of room for a navigation suite.

The leaning post has a reversible seat back, allowing for aft-facing seating or facing forward to drive. Jump seats flip out of the deck to either side of the skipper to keep everyone comfortable on the speedy run to the next fishing hole.

— Randy Vance

WHO'D WANT ONE Anglers with kids.

ANOTHER CHOICE Most jet fishing boats, like the SJX aluminum jet (from \$34,500), are for fishing in rocky rivers.

BOTTOM LINE \$31,999 (as tested); yamahaboats.com

▼ BOATING Certified Test Results

	SPE	ED_		EF	OPERATION				
rpm	knots	mph	gph	naut. mpg		n. mi. range	s. mi. range	angle	sound level
1000	1.56	1.80	0.40	3.91	4.50	106	122	0	69
2000	4.26	4.90	0.80	5.32	6.13	144	165	0	68
2500	5.04	5.80	1.00	5.04	5.80	136	157	1	73
3000	5.47	6.30	1.40	3.91	4.50	106	122	2	76
3500	6.00	6.90	2.00	3.00	3.45	81	93	3	80
4000	6.34	7.30	2.40	2.64	3.04	71	82	4	81
4500	7.30	8.40	3.20	2.28	2.63	62	71	4	82
5000	11.99	13.80	4.10	2.92	3.37	79	91	5	85
5500	20.33	23.40	5.30	3.84	4.42	104	119	3	86
6000	24.20	28.40	6.30	3.89	4.51	105	122	3	87
6500	28.33	32.60	7.80	3.63	4.18	98	113	2	92
7000	32.93	37.90	9.60	3.43	3.95	93	107	1	94
7400	37.54	43.20	11.90	3.15	3.63	85	98	1	95
MOST EC	CONOMICA	L CRUISIN	G SPEED						

► LOA: 19'0" ► Beam: 8'0" ► Draft: 16" ► Displacement: 2,150 lb. (as tested) ► Fuel Capacity: 30 gal.

HOW WE TESTED

ENGINE: 1.8L High Output Yamaha **DRIVE/PROP:** Jet pump **GEAR RATIO:** 1:1 **FUEL LOAD:** 15 gal. **CREW WEIGHT:** 200 lb.

PHOTO: COURTESY YAMAHA





known for, but with features and options that allow for more family and entertainment activities. This truly is the perfect package for the angler who wants it all.



300 and 350 hp. The 300 hp engine

proved 21 percent quicker in 0-to-30

mph acceleration tests and offered

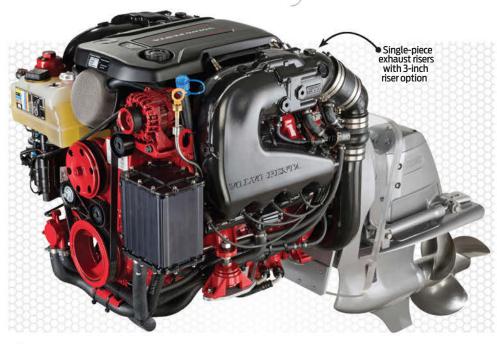
fuel grades and blends.

To simplify maintenance, Volvo
Penta has placed all accessories
(e.g., the oil filter, fuse box and heat
exchanger) at the front of the engine
for easier access, and standardized
the service points and common
parts across its next-generation gas
marine-engine line. That should
translate to quicker routine service.

changes in altitude and weather, as well as optimize for a wider range of

As a result of precise fuel delivery combined with catalytic converters, Volvo's next-generation V-8s are extremely clean too, producing far fewer CO and HC-NOx emissions than the stringent federal Envionmental Protection Agency standards for sterndrive engines.

To learn more, visit volvopenta .com. — Jim Hendricks



Generation V

VOLVO PENTA DEBUTS ITS MOST ADVANCED GASOLINE V-8s.

NSIGHTLY SCABS OF RUST ON CAST-IRON MOTORS ARE A curse that sterndrive engine owners — especially those who boat in salt water — have accepted as a fact of life. But life is changing ... for the better.

The next-generation gasoline V-8 inboards from Volvo Penta feature corrosion-resistant all-aluminum construction. That means no more rusty spots on the block, heads, oil pan, valve covers, intake manifold or even the exhaust manifolds.

It's an idea that outboard engines have employed for a long time to reduce corrosion and the weight of the power head. Volvo Penta first brought forward all-aluminum marine gas engines with its next-generation 4.3-liter V-6 sterndrive motors in late 2014 (available in 200, 240 and 280 hp), but these are the first of the V-8s.

Volvo's new 5.3-liter V-8 weighs as much as 119 pounds less than previous engines, but it offers stronger performance, thanks to a host of other advancements that enhance output, as well as increase durability and decrease maintenance.

Based on the General Motors Gen V (as in 5) engine platform, these are the first gasoline V-8 inboards to feature direct-fuel injection. Combined with variable valve timing, this improves low-end torque, acceleration and fuel efficiency.

Standard closed-cooling features an integral heat exchanger with a corrosion-proof, lightweight composite housing. Closed-cooling not only prevents internal exposure to corrosive salt water but also creates more consistent operating temperatures.

The 5.3-liter V-8 is available in

HONDA 1000
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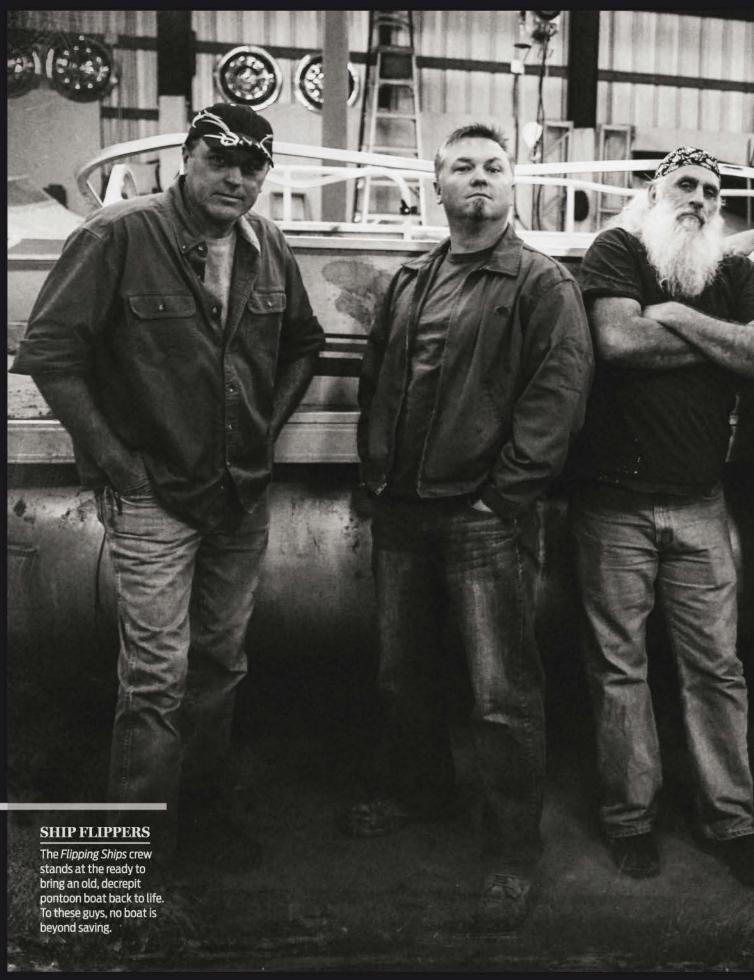
FEBRUARY 2016

V8-300-CE V8-350-CE **Engine** Horsepower 300 350 Max-rated rpm 5,800 5,800 5.3L/323 cid Displacement 5.3L/323 cid Compression ratio 11:1 SX, DPS, DPS OX DPS, DPS OX Available drives Weight with DPS drive 996 lb. 996 lb.

∠Honda's New BF100

Featuring a 1.5-liter four-cylinder, four-stroke engine, Honda's new 100 hp outboard features variable valve timing, electronic fuel injection, Boosted Low Speed Torque to advance ignition timing during hammer-down acceleration, and Lean Burn Control to maximize fuel efficiency. The BF100 weighs in at a svelte 366 pounds. marine.honda.com — J.H.





RESTORING A BOAT WITH THE FLIPPING SHIPS CREW

By Heather Steinberger

he old Forester pontoon boat had been rotting away on a South Carolina farm for 15 years. Nature had taken over, with weeds and bushes growing up around it in the field where, other than to stop bullets fired during its occasional use for target practice, it sat dormant. Still, its owners, Will and Melissa Merritt, were not quite ready to give it up, as the wreck was once a family boat. Given its sentimental value, they decided they'd rather spend their money on a restoration instead of on something new. They had an idea of what they wanted but no idea how to start. So how do you bring a boat like this back from the dead? You call Edwin McCain.



SONG OF RESTORATION

f the name sounds familiar, it's because you've likely heard his voice at multiple wedding receptions in the late '90s. The Greenville. South Carolina-based singer/ songwriter penned ballads, such as "I'll Be" and "I Could Not Ask for More," that were top-40 hits. He still makes music — and restores boats. Thanks to Animal Planet, McCain's longtime hobby became a fullfledged business enterprise called Boats Have Souls - and a TV series called *Flipping Ships*. In the show, McCain and crew seek out seemingly irreparable boats, like the old Forester, and bring them back to life.

McCain, 46, says he's always dabbled in boats. But his restoration inspiration came about six years ago when he found an 18-foot 1986 Chris-Craft Scorpion in a warehouse. He saw potential beyond the bad carpet and upholstery.

"I didn't have a boat, and I couldn't afford a new one," he explained. "My boys were little at the time, maybe 3 and 4. I figured if I could fix this boat up, they could do whatever they wanted in it, and I wouldn't be stressed about it."

He stripped the boat, pumped out the bad gas, and changed the spark plugs and oil. Soon he had a running boat. McCain says the experience lit a fire in him. He realized the country was full of abandoned boats that could be brought back to life, and he undertook his next project: a 50-foot Hatteras.

the right people."

That guy was visionary Will Slane, and he turned to naval architect Jack Hargrave to design a new breed of fishing boat. McCain says he found the story deeply inspiring.

"When you decide to save a boat, it doesn't matter if you don't know how to do that," he says. "You make mistakes, you learn."

66When you decide to save a boat, it doesn't matter if you don't know how to do that. You make mistakes, you learn.

"I bought it because, hey, the Scorpion was easy enough," he says with a laugh. "I bit off more than I could chew. But I had to do it. Hatteras is such an American story; it's what I want to believe about myself. You have this guy that's an avid fisherman — not an expert, but someone who wants to build a big boat of fiberglass. His friends thought he was off his rocker, but he asked

Admittedly not an expert, McCain also chose to ask the right people for help. He first turned to his best friend, Robbie, who is a master mechanic. McCain also pulled in Howie, the detail guy; Doug, the rock star of paint and body work; and Wayne, the white-bearded, colorful demolition man.

"Robbie and I had been doing projects together for



years," McCain says. "Howie worked next door to me in the warehouse, and Doug had a shop in the complex, doing custom restorations and paint work on cars. I'd known Wayne for more than 20 years, and I'd often said he needed his own show."

In a twist of fate, McCain decided the Hatteras restoration might make a good film project. He took the concept to a Los Angeles production company, and it liked the idea. So did Animal Planet.

Flipping Ships made its debut on Animal Planet in April 2015, and, overnight, McCain became more than a musician, singer and songwriter. He became the boat whisperer.

"Every boat is beautiful to someone," he says. "And it needs to be with that person. You might think a boat is too far gone, but we'll go all the way down to the hull and rebuild the boat the way you want it. Like it's part of the family, because it is."

Some offbeat "family members" included a 1970s Yukon Delta boat, as well as a midcentury Sea King runabout, which Hootie & the Blowfish frontman Darius Rucker hoped to sell in a charity auction to support MUSC Children's Hospital in Charleston, South Carolina. And there was a rare Airstream truck camper, which the team converted into a floating family retreat (incorporating an airboat barge from Louisiana).

"The Airstream was probably my favorite because it was so kooky," McCain notes. "If you've got good bones, you can rebuild it."

On the old pontoon boat, they did just that.

OLD FORESTER, NEW LIFE

n the second episode, the team rescued that derelict Forester pontoon from its South Carolina pasture. The boat's owner, Will Merritt, played football for the Clemson University Tigers from 1998 to 2001; he also worked as the team's color analyst for 12 years. To put it mildly, he's a big Clemson fan, and the team was determined to transform the sad hulk into a floating tailgate hot spot — a "sailgater."

McCain says they began to see the diamond in the rough once they cleared out the junk, stripped the railings and side panels, and trashed the old console. The pontoons and

SOUL SEARCHING

If you've got an aging or damaged boat that has sentimental value, you might be ready to tackle a restoration. Here are 11 tips to keep in mind. — H.S.

Take an inventory of your tools, and then roll up your sleeves and start. It's that simple.

Clean the boat from stem to stern so you can see exactly what you have to work with.

Remove all the water, leaves and debris from the boat. Organic material is your enemy.

Identify what's broken. Seat bases? Fiberglass components? The steering system?

5 Remove the old fuel from the fuel tank, as well as the old oil from the engine and gear case.

6 Remove the old belts and hoses on the engine and replace them with new ones.

Theck the throughhull fittings to make sure they are still properly sealed. Also check the seacocks to make sure they are in working order. Replace any broken ones.

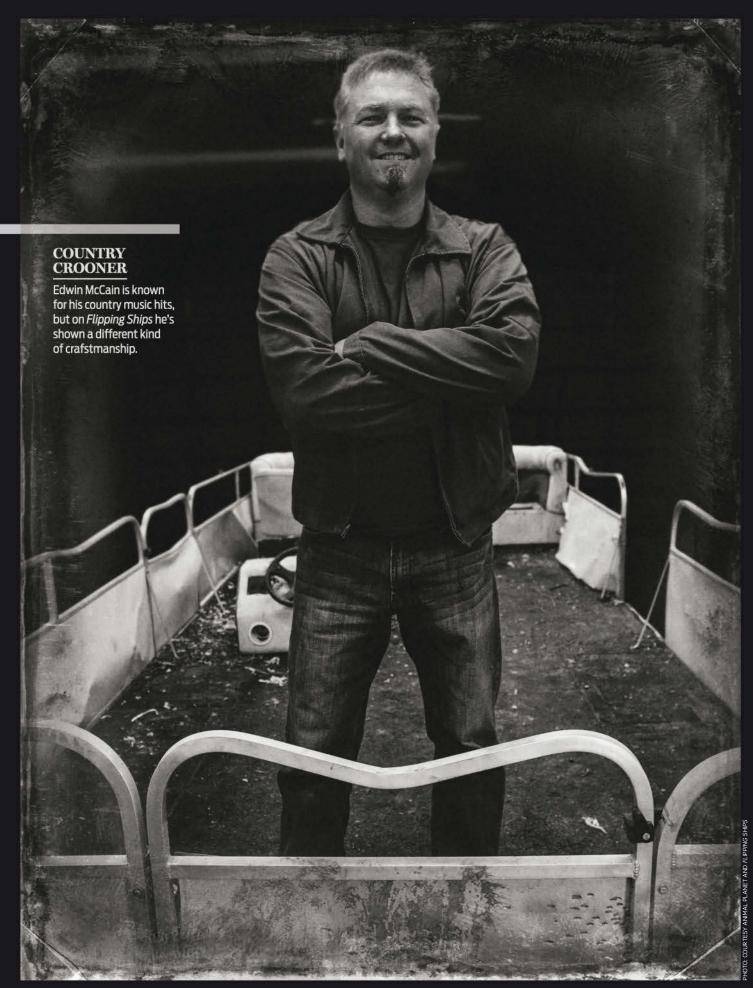
Look for cracking and crazing in the fiberglass around fixtures and fittings, such as cleats. Make sure loadbearing fixtures have a proper backing plate.

Old boats may have lots of rotting wood. Check the deck floor, seat bases and especially the transom for sagging, rot or decay. Strip old wood out of the boat and replace with marine-grade plywood or a modern cored composite.

10 Go to YouTube and find at least three step-by-step DIY videos that say the same thing. These guys might not be "experts," but they at least have experience.

Have a specific job in mind? Look up instructions in the DIY section at boatingmag .com/how-to/diy-projects.





the platform were still solid. Doug's job was to fix the dings and dents, including the long scrape McCain inadvertently added to one hull when he towed the trailer around the warehouse. He used a slide hammer to pop out the dents, ground and smoothed out the scratches, and then primed and painted the pontoons with a custom orange he created from several toners.

Next, the team scraped off the old carpet glue and laid in new carpet. (Field green so that this boat would be a reflection of the Clemson spirit in every possible way.) They fabricated aluminum railings in the distinctive shape of Memorial Stadium, more popularly known as Death Valley. They added an upper deck and a large scoreboard/ TV, and transformed reclaimed stadium seats into fishing chairs. They built a new console to accommodate the steering wheel, throttle and electronics: saved the couch frames and reupholstered all seating with Clemson colors and embroidered tiger paws; and even added flatscreen TVs to the backs of the couches so fellow boaters and paddlers, even swimmers, could catch a glimpse of the game.

Racing to meet their deadline (the final home game of the season), the team hung the engine; installed the custom galley with its Sedona By Lynx grill, sink, and refrigerator/ freezer/ice maker; mounted the TVs and side panels; connected the steering cable; and painted field lines on the floor. Finishing touches included Tigers pillows and throws, barbecue tools, and tailgating items, Tigers flags, and even an autographed football from the coach.

On delivery day, the Merritts were beside themselves. Will Merritt observed that the finished product demonstrated McCain's instinctive



understanding of how a boat should reflect the needs of a family, creating a one-of-a-kind experience on the water.

EVERY BOAT IS BEAUTIFUL

or each episode, McCain and his team of "gear heads on a mission" have 15 days from the discovery of the subject boat to the completion of the project, including shooting. Fortunately, they're able to take more time with the nontelevised projects that are more in tune with your reality.

Some are fairly straightforward. Recently, a customer brought in a Boston Whaler filled with worms, leaves and rotten wood. Mice had gotten cozy in the engine. "We cleaned it down to the hull, and that boat was as solid as a rock," McCain says. "Even the engine ended up fine!"

McCain said he's always eager to see what the next adventure brings.

"I'll be excited about what I find in this nasty, dirty boat," he says, laughing. "It's like, what the hell is *that*?"

This country is littered with boats like the Scorpion that McCain found years ago, and the old Forester left forgotten in a field. They're left outside because something broke, the owners never got around to fixing it, and now they think that perhaps the boat isn't worth fixing anymore. But they're wrong. As you get deeper into those adventures in restoration, you realize that all boats do have souls. Really.



O-and-Un

SIX HOT BOATS FOR LESS THAN \$30,000. BY JEFF HEMMEL

There's a rumor floating around that boating is expensive. The builders of the half-dozen boats that follow would beg to differ. Offering a surprising list of amenities, yet never going beyond the \$30,000 threshold,

they represent some of the best values in the runabout. pontoon, personal-watercraft and fish-boat categories. Want to get in with the 30-and-under crowd? We've got some cost-conscious contenders.



6 inches, yet still offers room for eight passengers on its parallel bow couches, welcoming aft lounge and swivel captain's chair. Personalize your 'toon with an optional high-back helm seat, upgraded upholstery with piping, sporty fence graphics, a deep swim ladder

helm windscreen, and a speedometer, tach, horn and LED docking lights. Add it all, plus a galvanized trailer, and you will still have money left for a season's worth of fuel.

FUN FACTOR: Our test boat's economical Mercury

5.5 gph at its 21 mph top speed, enough to not only get you where you want to go but also haul the kids around on a tube. Engine options for this boat go as low as 9.9 hp.

YOU GET: Full-length

molded helm console with a molded dash panel, swivel helm seat, aft storage pod. convertible Bimini top and a canvas camper enclosure.

PRICE: \$15,364 (with 60 hp Mercury FourStroke)

der Crowd



SPECS: ► LOA: 19'6" ► Beam: 8'1" ► Dry Weight: 1,465 lb. (without engine) ► Seating Capacity: 8 ► Fuel Capacity: Portable ► Max Horsepower: 60

CONTACT: Princecraft; Princeville, Quebec, Canada; 800-395-8858; princecraft.com



ABOUT THIS BOAT

It's no surprise you can buy a PWC for less than \$30,000. But we didn't want to ignore the category and the VX Limited is value-packed. The VX Limited pairs a more powerful engine with a higher level of trim. Additions include unique colors and graphics, a storage cover with built-in solar panel battery charger, pull-up cleats, and two accessory packages designed to appeal to active families. Contents include a color-matched inflatable and a tow rope, 12-volt inflator and tube holder for watersports fans, in addition to a ski tow eye, rope bag, dry bag and 12volt plug. The boat's standout feature, however, continues to be RiDE, a dual-throttle concept that uses the reverse bucket for enhanced control. Squeeze the reverse throttle at speed and the craft rapidly slows while maintaining steerage. The system also delivers exceptional control during tight, low-speed maneuvering.

FUN FACTOR: The lighter, more compact 1,049 cc TR-1 engine offers 13 percent more power than the engine it replaced, but truly stands out for its crisp acceleration en route to the craft's 50 mph top speed.

YOU GET: Seating for one to three on a tiered, cruising-friendly seat, digital instruments, dual mirrors, watertight storage and also a remote security transmitter.

PRICE: \$10,899

SPECS: ► **LOA:** 11'0" ► **Beam:** 4'0" Dry ► **Weight:** 668 lb.

- ► Seating Capacity: 3
- ► Fuel Capacity: 18.5 gal.
- Storage Capacity: 24.6 gal.

CONTACT: Yamaha; Kennesaw, Georgia; 800-962-7926; yamahawayerunners.com



ABOUT THIS BOAT: Pontoons lost their senior-citizenonly image long ago. Lowe's Ultra 180 Cruise is as equally suited to the stately cruiser as it is to the active young family. Our test boat's 40 hp Mercury outboard handled the evening cruise with fuel-sipping finesse. The versatile layout carries up to nine passengers, split between the parallel lounges forward, twin swiveling folding fishing seats amidships and the aft bench. A standard 9-foot Bimini keeps most in the shade on a hot day. Ample stowage with perimeter drainage gutters swallows up the gear passengers bring aboard while keeping moisture at bay. But if the kids get antsy with the sightseeing cruise, take 'em for a spin

on a tube. The engine has enough oomph to get the job done.

FUN FACTOR: A 40 hp Mercury outboard will absolutely purr on that cocktail cruise, sipping a miserly 2 gph at 10 mph while barely nudging the decibel meter. The peak speed during our test ride was 18 mph.

YOU GET: Gelcoated fiberglass console, a tinted windscreen, speedo, tack and trim, vinylwrapped seat bases, four-step boarding ladder and a 9-foot Bimini top.

PRICE: \$15,810 (with 40 hp Mercury FourStroke)

SPECS: ►LOA: 19'6" ► Beam: 8'0" ► Dry Weight: 1,673 lb. (without engine) ► Seating Capacity: 9 ► Fuel Capacity: 6 gal. (portable) ► Max Horsepower: 75

CONTACT: Lowe Boats; Lebanon, Missouri; 417-532-9101; loweboats.com









ABOUT THIS BOAT

Ranger is a premium fishing brand, but the Z175 makes ownership more affordable than one might expect. And you don't have to scrimp on features to join the club. Forward, tournament-ready rod storage includes secure, dedicated lockers for rods and tackle. A Minn Kota footoperated trolling motor is at the ready; onboard Dual-Pro chargers keep batteries topped off. What about the signature Ranger fish ruler? It's located amidships for convenience. Retractable tie-downs offer quick access to stow and retrieve rods on the fly; nest rod tips in the gap between the helm console and gunwale. Rounding things out are a recirculating aerated livewell and baitwell with filter screens and automatic timers.

FUN FACTOR: Evinrude's

E-TEC 115 boasts a great power-to-weight ratio and is notoriously stingy on fuel. To wit, we zipped along at wide-open-throttle at 45 mph while burning just over 13 gph.

YOU GET: Lowrance Mark-5x Pro GPS fish finder, SRS Soft Ride seating, power trim, premium upholstery, LED navigation lights and a Ranger premium trailer.

PRICE: \$26,000 (with Evinrude E-TEC 115)

SPECS: ▶ LOA: 17'6"

▶ Beam: 7'6" ▶ Dry Weight:
1,250 lb. (without engine)

▶ Weight Capacity: 1,200 lb.

▶ Fuel Capacity: 23 gal.

▶ Max Horsepower: 115

CONTACT: Ranger Boats; Flippin, Arkansas; 870-453-2222; rangerboats.com





ABOUT THIS BOAT: Fish-and-ski boats combine two of boaters' all-time favorite passions, but they don't all nail the execution. Chaparral's 18 H2O Ski & Fish succeeds by offering family buyers flexibility and convenience with minimal hassle. In everyday mode, eniov a comfortable bow cockpit, dual captain's chairs, and an aft bench flanked by two jump seats and a comfy sun pad. Open the in-floor ski locker, select the plank of your choice, and you'll be cutting the wake in no time. Are you ready to fish? Remove the bow cushions and one of those jump seats becomes a bow fishing chair with the standard trolling motor at the ready. Aft, the sun pad reveals an elevated casting platform ready for the remaining seat and that offers

quick access to the 70-quart cooler/aerated livewell.

FUN FACTOR: Chaparral's Extended V-Plane hull extends the running surface, increasing stability, shortening planing times, softening the ride and sharpening the handling. With a 135 hp MerCruiser sterndrive, expect enough acceleration for tow sports and a top speed just south of 40 mph.

YOU GET: Wrap-around walkthrough windshield, AM/FM Bluetooth sound system, gunwale rod storage, removable navigation lights and a trailer with a swing-away tongue.

PRICE: \$23,995 (with 135 hp MerCruiser sterndrive)

SPECS: ►LOA: 18'4" ► Beam: 7'6"
► Dry Weight: 2,420 lb. ► Seating
Capacity: 8 ► Fuel Capacity: 25 gal.

► Max Horsepower: 135

CONTACT: Chaparral Boats; Nashville, Georgia; 229-686-7481; chaparralboats.com





The classic bowrider has long been the go-to boat for families with multiple interests, but, historically, the bow that gives the boat its iconic name has often been a crowded compartment intended only for kids. Bayliner's VR5 opens things up by carrying its 8-foot beam as far forward as possible, widening the bow rather than pinching it to a point. The boat gets a similar treatment aft, with the swim platform pushed back to reclaim additional space in the main cockpit and make room for a versatile L-shaped bench with a flip-over passenger backrest and a generous sun pad. Add the boat's high freeboard and you've got a roomy, secure feel, all for a similar price you'd pay for a more cramped alternative.

FUN FACTOR: With a 200 hp MerCruiser 4.5L under the sun pad, expect a 4.5-second time to

plane and a top speed in excess of 46 mph. The 20-degree deadrise hull also predictably handles aggressive turns while not feeling over its head in the chop.

YOU GET: Trailer with disc brakes and a swing-away tongue, a swivel helm seat, in-floor ski locker, AM/FM stereo with auxiliary inputs, a transom walkthrough and seating capacity for nine passengers.

PRICE: \$26,999 (with 200 hp MerCruiser 4.5L sterndrive)

SPECS: ► LOA: 20'4" ► Beam: 8'0" ► Draft: 1'0" ► Dry Weight: 3,400 lb. ► Seating Capacity: 9 ► Fuel Capacity: 33 gal. ► Max Horsepower: 220

CONTACT: Bayliner Boats; Knoxville, Tennessee; 360-435-8957; bayliner.com





We spend a day on the water, boating by app.

BY JEFF HEMMEL PHOTOS BY TOM KING

hese days, we seemingly do everything by app. We listen to music, check the news or download an airline boarding pass. All are just a tap or two away on that magical gadget we call a smartphone. Which got us thinking, maybe we could actually go boating ... by app. Make no mistake, we fully intended to have the real-world, outdoor experience, but maybe we could find and rent a boat, plot a course, check the sea and tide conditions, and even book a last-minute marina slip all with the same ease of use that one has to summon an Uber driver.

A quick search of the app stores reveal there are certainly candidates to get the job done. Apps have opened up a whole new world of possibilities in nearly every aspect of life, and enterprising, forward-looking programmers have stepped into the void to write the next big thing in code. So we downloaded a few boating-related titles and gave ourselves a challenge — we'd do everything in cyberspace but the actual driving and enjoyment.

Locate a boat, plan a trip, keep tabs on the weather, and book a slip in real time at an available marina? Trust us, there's an app for that.

GetMyBoat

Free; Web, Apple App Store, Google Play

Highs: There are a wide variety of boats available in more than 140 countries: in Uber-like fashion. peer reviews alleviate concerns.

Lows: Owners handle pricing and payment; credit cards may not be an option.



ubbed the "world's largest and fastest growing peer-topeer boat rental and charter marketplace," GetMyBoat currently offers access to over 40,000 boats in 143 countries. That's an impressive inventory, especially given that founders Sascha Mornell and Raf Collado only launched the app in January 2013. Being sailors, the pair noted the tremendous number of boats sitting idle in marinas and knew well the high costs of boat ownership. Their solution provided a means for boat owners to offset costs, while allowing renters convenient and affordable access to the water.

Using the app is relatively simple. As a renter, allow it to recognize your location (or provide it via the search window), and up pops a local map with all the boats available in the area. Use the provided

filters to specify power, sail, fishing, nonpowered or even megavacht, along with price range and passenger capacity. Clicking on one of the numbered icons in the results reveals a photo, short description of the boat in question, and the hourly price range. Delve one level deeper for a more thorough description of the boat, any restrictions, what type of payment is accepted, and a button to reserve the craft. Reservation details follow,

with a pop-up calendar to confirm the date and hours, along with an opportunity to let the owner know any specifics about your plans, boating experience and trip details. Liability and propertydamage insurance can be purchased for a nominal fee.

While the concept behind GetMyBoat is peer-to-peer rentals, commercial rental operators are included. My boat ended up coming from Tampa Bay-area Blind Pass Boat and Jet Ski Rental. A representative contacted me by email within hours of my booking, confirming the dates in question. Arriving on the designated date, the boat was ready, fueled and waiting, with an employee ready to go over all the operational details, confirm the local waters, and answer any questions. Peer rentals may not always be as simple, but, like Uber, both owner and renter reviews are encouraged to increase the odds of a smooth transaction. GetMyBoat also encourages parties to communicate as much as possible beforehand to ensure a successful transaction during use.

Using the app is relatively simple. As a renter, allow it to recognize your location (or provide it via the search window), and up pops a local map with all the boats available in the area.



Navionics Boating

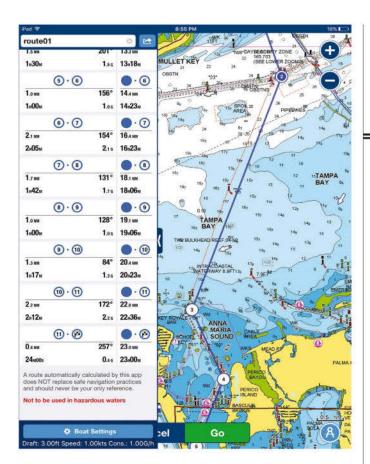
One-week free trial, one-year subscription \$49.99 (U.S. only), \$54.99 (U.S. and Canada); Apple App Store, Google Play

Highs: Impressive level of details; frequent updates.

Lows: Display can look quite busy; it's more easily viewed on devices with larger screens.



avionics pioneered electronic charting all the way back in 1984, and today it has the world's largest database of marine and lake charts. At



one time those charts were primarily found on data cards plugged into chart plotters, but today that same info is available through a subscription to the Navionics Boating app, including nautical and sonar charts, even local info provided by fellow boaters. App users benefit from daily chart updates, ensuring you have the most accurate info about your boating environment, as well as advanced options that let you highlight shallow areas, select depth shading and filter depth contours, adjust water level or target key fishing areas. Navigation features include route planning with ETA, distance to arrival, heading to waypoint, fuel consumption, and for iPhone and iPad (coming soon to Android), dock-to-dock auto routing based on chart data and navigational aids.

Using the Route feature, we plotted a course out of

St. Petersburg, across Tampa Bay to Anna Maria Island, and into the Intracoastal Waterway behind Longboat Key to Sarasota Bay. The most current detail far surpassed a paper chart, particularly in an area that Navigation features include route planning with ETA, distance to arrival, heading to waypoint and fuel consumption.

sees semi-frequent shifting of depth, loose markers, buoys, etc. When we stowed the iPad due to rough seas in Tampa Bay and wandered slightly off our heading, a quick glance at the detailed chart enabled us to quickly get our bearings and correct course.

Caveats? Navionics is free during a one-week trial period; a subscription to Navionics+ (including updates and sonar charts) costs \$50 to \$55 for HD versions on the iPad and \$10 to \$15 on the iPhone. Subscriptions can be renewed at an approximate 50-percent discount or users can continue to use the previously downloaded charts for free. Given the level of detail, we also found the app was best viewed on a larger screen. With so much available information, the display can look quite busy. Our iPad easily surpassed our iPhone for quality viewing.

Buoyweather

Free two-day period, premium subscription \$79.95 per year or \$14.95 per month: Apole Apo Store. Google Play

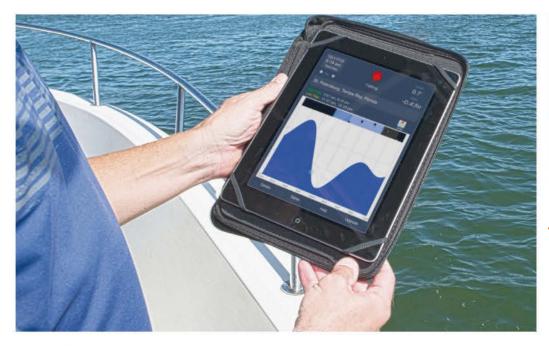
Highs: More specific than NOAA and has a reputation for better accuracy in wave height.

Lows: Long-range forecasts and expanded information requires paid subscription.



ith a boat rented and course selected, the next logical step was to check weather and tides. For the former we tried Buoyweather, an app that uses a global network of "virtual" buoy points to deliver accurate, long-range marine forecasts with wind and weather data. Users set their GPS location on the map and choose a







Poor Man's Performance App

Looking to do some performance testing of your boat, but don't have access to a radar gun and acceleration-testing software? You can get a diluted version of the same information through Strava (strava.com), a popular cycling app. Available for free downloaded from Apple or Android, or uploaded to the Strava website from numerous GPS-based cycling computers, like the Garmin Edge, Strava uses GPS to track your route, measure your speed, and total your mileage. When my GPS died during a Sea-Doo press introduction, I whipped out my phone, started the app, and not only recorded top speeds but also produced an informative acceleration graph. -J.H.

time zone and units before bringing up a morning and afternoon marine forecast for a two-day period, complete with wind and sea state, swell period, surface-pressure charts, and a link to further details on the trend for the coming days. A two-day period is the limit of the free version; upgrading to the paid version extends the forecast out to seven days. High-resolution wind forecasts provide a graphical look at conditions and help make informed decisions on upcoming conditions. Oneclick access is available for favorited locations.



ide Graph uses the harmonic predictions from literally

Tide Graph
proved great
for a quicklook update out
on the water,
especially
when entering
shallow waters.

thousands of coastal stations across the U.S. and forms them into a simple interactive graph. Bring up details, like the next high and low tide, sun and moon rise and set, and future tide predictions. With it's large format, Tide Graph proved great for a quick-look update out on the water, especially when entering shallow waters. A separate app, Tide Graph Pro (\$2.99), provides over 6,000 U.S. tide and water conditions, and doesn't require an Internet connection to update. Predictions are based on data provided by the National Oceanic and Atmospheric Administration.

SlipFinder Free; Apple App Store, Google Play

Highs: Quick, easy slip bookings and an intuitive interface

Lows: As of now, primarily covers Northeast, East Coast, Bahamas

s multigenerational boaters, the creators of SlipFinder know the frustration of trying to easily find and book an available slip or mooring. Over the years, they also noted the oddity of the occasional empty slip on a busy holiday weekend. "There is a paradox in the industry that boats have increasingly high levels of technology built in, and yet some marinas are still operating the way they have for the last 30 years," explains SlipFinder's Keith Cooper. "We're using apps in many other areas of our lives. Why can't we just book a slip or mooring from our phone?"

With SlipFinder, you can. A still relatively young startup, SlipFinder currently offers a choice of 200 marinas on its app, primarily centered along the Northeast, East Coast and Bahamas. The company's goal is to promote more active boating by ultimately building a network of marinas that will allow boaters to explore, "marina hop," or travel. There's no charge for marinas to sign up. Boaters pay the dockage fee directly through the app. Available results are tailored not only to the area, but they also take into account the dimensions of your vessel. Users will never show up to find their boat won't fit the available slip, and marinas avoid the same.

The app itself is simple

The My Slips tab saves the reservation, as well as previous slip purchases. An email confirmed the purchase and included the dockmaster's contact info.

and intuitive. I recorded the boat's name and dimensions under the Boats tab, noting dockside requirements, like power and water, before using the Finder to search for results. Available slips and prices immediately followed. An individual slip's status includes colorcoding to indicate if the slip meets all your needs or lacks any specific amenity. We selected a slip at Longboat Key Club Moorings with a quick tap, noted the number of days, and paid by credit card. SlipFinder uses an established website/ app credit-card processor, and stores no payment information on its own server. The My Slips tab saves the reservation, as well as previous slip purchases. An email confirmed the purchase and included the dockmaster's contact info. In our case, the marina also followed up by phone to confirm our arrival and make sure it was ready to address our needs. Upon arrival we contacted the marina via VHF, and a dockhand cheerfully greeted us at the slip.



Animated Knots By Grog

\$4.99; Apple App Store, Google Play

Highs: Large inventory of knots, clear animation, advantages — and disadvantages — of each knot.

Lows: There are many other free apps available ... but none better.



s to everyday boating apps, we also checked out Animated Knots by Grog. Knots are broken down into categories. Choose boating and 39 popular choices pop up, with frame-by-frame visual instructional. Pause or rewind the animation to get a specific detail; select the Information tab to learn the various uses of the knot, along with its strengths and shortcomings.

We assigned our 10-yearold first mate the task of securing our boat at the marina with a variety of appropriate knots, a feat she accomplished by watching the animation on an iPad and then mirroring the task. By the end, she tied a bowline better, and faster, than us. Extras include how to

fashion a figure eight and Flemish flake, properly coil attached and unattached lines, splice, and even rope care and cleaning. The app also has a cleaner, more attractive interface than the Grog website, making it perfect to review on a phone or tablet out on the water. 9

Extras include how to fashion a figure eight and Flemish flake, properly coil attached and unattached lines, splice, and even rope care and cleaning.



Electronics

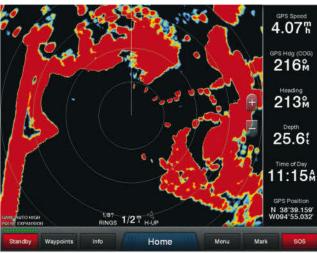
xHD2

GARMIN

GARMIN GMR ×HD₂ RADAR

Marine radars with compact dome antennas are becoming increasingly sophisticated, sensitive and popular, but radar systems with open-array antennas still offer the ultimate in target detection and range.

– Jim Hendricks



Among the newest open-array marine radar systems to hit the market are Garmin's most powerful radars to date: the

maximum range of 96 nautical miles. The 4-foot GMR 2524 xHD₃ and 6-foot GMR 2526 xHD, are available with Pulse Expansion, which increases the duration of the transmit pulse and boosts the target size for identifying returns at longer ranges. Pulse Expansion will also be available for the existing line of xHD open-array and xHD dome radars with a free software upgrade. The new radars also feature Auto Bird Gain², which lets you easily locate flocks of birds, as well as dual range for simultaneous short- and longrange views. Both will integrate with Garmin's GPSMAP chart plotters, combo units or multifunction displays. \$7,999.99 and \$8,999.99, respectively; garmin.com

Ask Ken

I am confused about which transducer frequency — 50 or 200 kHz — is best when using my sonar for fishing and family cruising.

The higher 200 kHz frequency provides greater detail and resolution to track the bottom, as well as to spot fish, at depths of 300 to 600 feet. It is especially useful in lakes, rivers and shallow waters off the coast.

The lower 50 kHz frequency penetrates to depths of 1,000 feet or more. This makes 50 kHz best for oceans and deep lakes. While lacking the sharper resolution of 200 kHz, the 50 kHz frequency offers a wider view, allowing you to spot fish and bait schools that the narrow-beam 200 kHz frequency might not pick up. Think of 200 kHz as a moderate-distance spotlight and 50 kHz as a long-range floodlight. You can get transducer/ sonar systems that offer both frequencies, and many displays allow you to view both at once in split-screen mode. - Ken Englert

PHOTOS: (CLOCKWISE FROM TOP LEFT) COURTESY GARMIN, CRAIG HASHIMOTO, COURTESY BOOMBOTIX, COURTESY GARMIN

ASK KEN ONLINE

For more exclusive electronics content, visit boatingmag.com/askken.

GMR 2524 xHD₂ and GMR 2526 xHD₂ high-definition radars. Both feature 25 kW transmit power, open-array antennas and a



Boombot Pro

Sure, many boats have cool built-in stereos, but lots of them don't. Here is a great waterproof backup or an ideal unit for smaller, open boats, or for that day when your stereo is awaiting repair. It has a shockingly big sound and clear, crisp high notes. Auxiliary inputs or Bluetooth smartphone connections are a snap. Play music or stream Pandora right through it. It even syncs with Siri and serves as a speakerphone. There's 2 GB of internal memory to store and play music without a device connected. Did I mention it's waterproof? The kids will want to take it down to the beach when you're at your sandbar party, so they should have their own unit. Use it in the shower ... or wherever. \$99.99; boombotix.com — Randy Vance













Factory direct: 810-794-5551 9483 Smith Street, Algonac, MI 48001

www.oceanexpress.com

in fo@ocean express.com

Also contact us at WhatsApp: 810-748-7324



Short Casts



Ready To Roll

The holidays are over, and a new fishing season is just a cast away. Prep now to be ready to roll come opening day. - Tom Schlichter

Make Cents

Don't lose trophies to dull hooks worth pennies. Sharpen all lure hook points now and replace any fish stickers that show rust.

Get Fresh

Structure lovers, like largemouth bass, stripers, grouper and snook, thrive where dicey bottoms wear on your lines. Trim 30 feet off the braid to start with a fresh lead. It's best to replace any monofilament lines entirely.



Catch Fish, Not Cotton

Ratty guides slice lines. Check for chips or grooves, and inspect footers and wraps. Rub a cotton swab around the inside of each guide and replace any that catch fibers.



Assemble specialized lure boxes for your favorite species. Each small, see-through plastic box should include just four to six lures selected to address color, size and working depth.

Ice-Fishing Tips

Many anglers pursue ice fishing after the boat is put to bed for the season. Ice safety is a subject almost as ripe with lore and wisdom as fishing itself. It's way too much to address here, but I will offer these three tips.

- Carry a pair of ice picks or screwdrivers. These can be used to pull yourself up out of the water and along the ice should you break through it.
- 2] Wear a life jacket under your snowmobile suit or use an insulated "float coat."
- 3 Do not wear a life jacket while riding in an enclosed vehicle across the ice.

For more ice-safety information, visit takemefishing.org and search for ice fishing. Kevin Falvey

Drag Cleans

Use a dish detergent and a little lube to scrub all reels and ensure drags function smoothly. Drags that stick after lubing require tackle-shop inspection. Expect a two-week turnaround.



This may be the coolest fishing accessory yet. Tie this 720p underwater camera to the line ahead of your bait, add one of the cylindrical weights for stability, and it trolls like a torpedo ahead of your bait, capturing anything that happens. When a fish bites, you have it. If it spooks, you might be able to see why. When a hooked fish jumps, the camera is aimed perfectly at the fish both above and below the surface. It can run four hours on a charge and is waterproof to 100 meters without a case. Helmet, dash-mount or rod- and pipe-mount accessories are also available. One recommendation: Make sure the line from the camera to your lure tests less than the running line from the lure to the reel! \$200; basspro.com – Randy Vance



UNRIVALED! 211 COASTAL/ANGLER

QUALITY. PERFORMANCE. VERSATILITY.

Unrivaled in quality, performance, and versatility the NauticStar

211 Coastal/ Angler is the perfect choice for pleasure boaters and fishermen alike. NauticStar continues to innovate with this uniquely styled boat series that merges family pleasure boating with serious salt and freshwater fishing. The 211 Coastal is loaded with features for exceptional fishability such as 2-livewell/baitwells,

ample rod storage, and cast net storage, while the 211

Angler has additional features for pleasure boating such as a swim platform, Bimini top, and Infinity® stereo system.

®YAMAHA

211 COASTAL



211 Coastal
(right) is shown
with optional swim
platform (standard on the
Angler), and bow table/casting



- 3-across aft seating with battery storage, 27-gallon livewell, and cast net/bucket storage
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Some photos shown with optional equipment





BOATINGLAB

BY RANDY VANCE

Salt Removers

Salt is insidious. The damage it causes to the metal, paint and gelcoat on your boat is irreversible. That's why boaters worth their salt who navigate in the brine wash their boats and flush their motors' cooling systems immediately — with water at least.

A PRIMER ON RUST

There is a nasty little secret about rust and salt. Salt doesn't really cause the corrosion, oxygen does. Salt is just there to speed the process. Rust, as any eighth-grade chemistry teacher will tell you, is a result of oxygen and iron molecules combining to cause iron oxide. Salt clings hygroscopically to steel and draws water to itself, which, in turn, causes iron ions and oxygen ions in the water to combine more efficiently and at a faster rate. That's called oxidation

and it looks like rust. On raw steel, rust can actually creep up in a matter of minutes. Long term, the layer of oxidized metal holds water, which accelerates the oxidization, causing the steel to pit and eventually weaken. Leaf springs on trailers are particularly vulnerable to this corrosion. And it can happen to aluminum too, so arches, tops and the inside of many motors are also critically at risk.

Yet water is the first line of defense against rust. Why? Because it dissolves the salt and allows it to drain away. Once the salt is gone, the water still fosters corrosion but at a slower rate. Fortunately, it dries quickly, and the process is slowed — but not stopped. Even when the water is gone, oxygen and iron still combine to cause rust and corrosion.

Star brite

Salt Off with PTEF

\$10.49: WESTMARINE.COM

This iteration of Salt Off is premixed in a refillable pump-spray bottle. To refill, use I ounce of Salt Off concentrate to one bottle of water. Star brite markets a number of products with PTEF, a form of Teflon coating, and we've found them effective in blocking stains in deck washes and improving gloss in wax.

OBSERVATIONS: It removed salt and suspended rust more quickly, probably due to a higher concentration in the premixed bottle. We would select this product for gear like reels, tackle and dive equipment.

SPECS

DILUTION: Prediluted

QUANTITY: 22 ounces

GALLONS PER OUNCE: Not applicable

RUST PROTECTION: It slowed rust for up to an hour. However, 24 hours later rust was equal to the control steel.

APPLICATION

GAL./OZ.

2

T/TREAT PREVENTION







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HOW WE TESTED

There are several products on the market formulated to hinder corrosion. We wanted to compare the effectiveness of the product itself and its method of application.

First, to test the applicators included in the concentrates, we filled each with the same amount of liquid and turned on the hose. We caught the mixture in buckets to see if the mix was accurate and to see how long the spray continued.

The spray bottle is intended for more localized use, and we tested it for ease of use, controllability and appropriateness for the intended jobs.

SALTY BUSINESS

We used two flat steel bars and sanded them as bright as possible, removing rust. We taped off four sections of one bar; one section for each product, plus one for vinegar — a popular home remedy for removing salt that proved to remove salt and rust the best, but it allowed them to return far too quickly.

We sprayed the steel bars with salt water and let them stand for an hour, noting the growth of rust. Then we sprayed down the test sections with the salt removers. The control steel was rinsed with plain water. We hoped to be able to observe a distinction between the water-rinsed steel and the steel rinsed with salt-removing products.

HOW WE SCORED EASE OF APPLICATION

CONCENTRATES: The applicator lasted a reasonable amount of time and treated enough water to wash a 20- to 30-foot boat.

Maximum score = 3

SPRAY BOTTLE: The spray stream was controllable, not wasteful, and appropriate for reels, electronics and more.

Maximum score = 3

GALLONS PER OUNCE:

Most = 3. less = 2

COST PER TREATMENT:

Assumed 15 gals. Most = 2, least = 3

RUST PREVENTION:

Demonstrated a clear advantage in inhibiting rust one hour later: Best = 3, least = 2



West Marine

Pure Oceans Salt-Off

\$41.99: WESTMARINE.COM

Pure Oceans chooses chemicals and packaging to minimize the environmental footprint. A lower dye content means fewer inert ingredients. It contains PTEF, a corrosion and stain inhibitor. A surfactant foams to help the product cling.

observations: The lighter dye appeared more diluted but proved to be equally effective. Dual valves in the applicator preserved chemicals at rest. The 2- to 4-ounce-per-gallon concentration was unmeasurable in the applicator.

SPEC

DILUTION: 2 to 4 ounces per gallon

QUANTITY: 32 ounces

COST PER GALLON: \$5.25

RUST PROTECTION: One hour after application minimal rust had returned; 24 hours later rust was comparable to untreated steel.





CATION GAL./OZ. COST/TREAT





\$52.99; WESTMARINE.COM

The product contains rust inhibitors and surfactants to foam and lift salt-crystal applications, and clings to surfaces. If left to dry, it encapsulates salt, preventing additional corrosion. A rinse aid helps in sheeting action to remove spots.

OBSERVATIONS: The darker dye persisted longer in the solution, offering more reassurance but no additional efficacy in our test. The 2- to 4-ounce-pergallon concentration was unmeasurable in the provided applicator.

SPECS

DILUTION: 2 to 4 ounces per gallon

QUANTITY: 32 ounces

COST PER GALLON: \$6.64

RUST PROTECTION: One hour after application minimal rust had returned; 24 hours later rust returned equal to the control steel.





APPLICATION

GAL./OZ.

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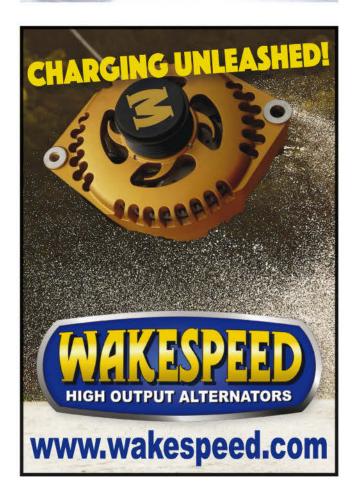


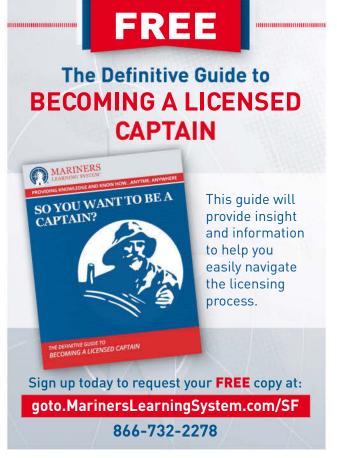
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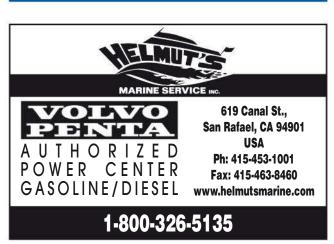
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Following Seas By David Seidman



The Literate Boater

A LIBRARY OF WET WORDS TO LIVE BY

'M ONE-DIMENSIONAL AND HAVE NO LIFE BEYOND BOATS. Unless you know what a keel pad is, you don't want to sit next to me at a dinner party. I'm that much of a total bore. This revelation of my lack of depth came to me after looking at my bookshelf: boats, boats, boats, oceans, boats, ships, boats, boats, and another few hundred on boats.

Since you've bought this magazine, there's a good chance that you understand my obsession. So I thought you'd like to know what's in my library.

Blue Thunder: How the Mafia Owned and Finally Murdered Cigarette Boat King Donald Aronow by Thomas Burdick. The long subtitle says it all. It's good gritty crime reporting.

Crunch & Des by Philip Wylie. Tales of a Miami charter-boat captain and his mate in the '40s that are a lot saltier and more believable than Hemingway.

Three Men in a Boat by Jerome K. Jerome. If Monty Python went boating, this is what would have come of it. It's from England in 1889, and it still works.

Islands in the Stream by Ernest Hemingway. It has one of the best fistfight and fishing scenes, and then goes on to hunting Nazi subs off Cuba.

Song of the Sirens by Ernest K Gann. One of the great adventure writers tells of the boats (the "sirens") that owned him.

Not up for whole books? Brush up on some nautical quotes. One of the best is "... there is nothing — absolutely nothing — half so much worth doing as simply messing about in boats." It's from *The Wind in the Willows* by Kenneth Grahame. Tell the clerk at the bookstore it's for your kid, but don't waste it on children.

Not up for whole books? Brush up on some nautical quotes. One of the best is "... there is nothing — absolutely nothing — half so much worth doing as simply messing about in boats."

If your navigational skills are like mine, you'll appreciate these words from someone named Anonymous: "How can I get lost when I don't know where I'm going?"

Or the equally Zen-like "We're all here because we're not there."

From Dean Martin? "Any damn fool can navigate sober. It takes a good navigator to do it drunk."

Which leads us to "I want a boat that drinks six, eats four and sleeps two" from Mr. Gann.

I'm very fond of this classic: "It looks like frozen snot" from old-time designer and curmudgeon L. Francis Herreshoff when he first saw fiberglass.

For even more casual reading, I prefer the classifieds. I noted that there's a glut of old mega yachts in the Miami Herald. Looks like there's a ghost fleet forming in South Florida's back creeks. For the price of a well-equipped, new 58-foot Sea Ray Sundancer you can pick up a 10-year-old 80-footer. On eBay I found a rare Donzi Blackhawk. A blackedout 22 Classic with the disastrous Merc Blackhawk surface drive. The owner will trade it for a Harley. In the National Fisherman's back pages there was a 27-foot St. Pierre dory with a single-cylinder diesel. Salty as hell but so unstable that it rolls gunwale-togunwale if you cross your legs. Another source is Messing About in Boats, a dirt road off the information superhighway that leads to ads for such nuttiness as a folding trailerable houseboat.

So until the next time, I'll see you outside the inlet, which is a much better place to be than sitting around with your nose in a book (and you can quote me on that).

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